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A quarterly publication of the
SURVEY RESEARCH CENTER
Institute for Social Research
THE UNIVERSITY OF MICHIGAN

Victor Zarnowitz
Where Are We Now and Where Are We Heading?
Richard T. Curtin
Consumers Discouraged by High Interest Rates
F. Thomas Juster
The Economics and Politics of the Supply-Side View
Daniel H. Hill
The Impact of Natural Gas Deregulation on American Families
Arthur H. Miller
Realignment in the 1980 Election

SPECIAL 1982 FORECAST ISSUE FORTHCOMING IN JANUARY:

The Michigan Model Econometric Forecast for 1982
Commentaries on the 1982 Outlook
The ASA-NBER Forecasters' Panel Looks at 1982
Consumer Sentiment in Fourth Quarter 1981

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EDITOR'S NOTE:

ECONOMIC OUTLOOK USA is designed to aid private and public decision makers in achieving a better understanding of the economic and social environment in which they will be operating. The analysis in this publication incorporates direct measurements of the expectations, attitudes and plans of both consumers and business firms with the economic and financial variables traditionally used in forecast models. The philosophy of this publication is that a blend of anticipatory and traditional measures provides richer insights into prospective developments, insights which will produce more consistently reliable forecasts of both economic and social change.

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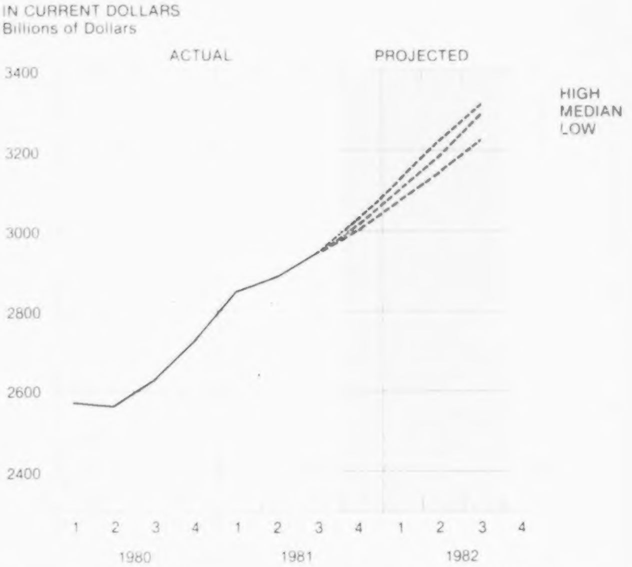
ECONOMIC PROSPECTS

Actual and projected; seasonally adjusted quarterly data at annual rates

GROSS NATIONAL PRODUCT



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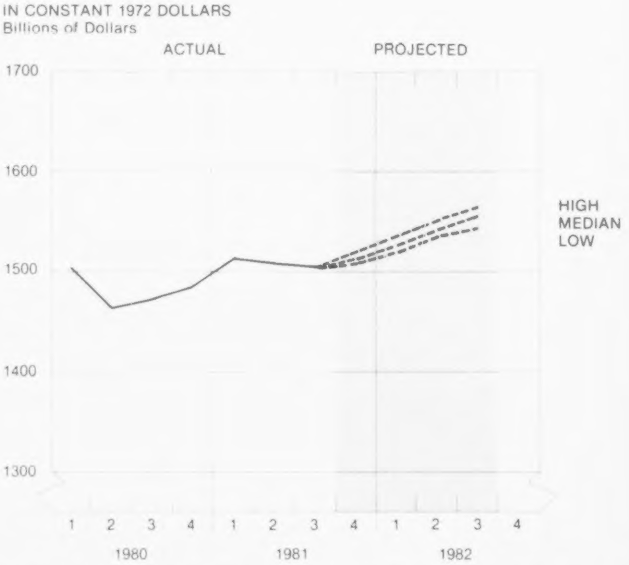

Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters, adjusted to reflect latest available data.

Frequently Used Abbreviations:

ASA	American Statistical Association
BEA	Bureau of Economic Analysis, U.S. Department of Commerce
NBER	National Bureau of Economic Research
SRC	Survey Research Center
19XY:Z	Zth quarter of 19XY

Where Are We Now and Where Are We Heading?

Victor Zarnowitz
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The University of Chicago

Is the Economy in a Recession?

GNP in 1972 dollars declined 0.4% in the second quarter and a little more than 0.1% in the third quarter, according to the latest (seasonally adjusted) data which are still subject to several revisions.[1] These are very slight changes, although the widespread practice of expressing the figures at annual rates (in this case, 1.6% for 1981:2 and 0.5% for 1981:3) may give the public a different impression.

Thus, under the popular notion that two consecutive quarters of decreasing output constitute a necessary and sufficient criterion of a "recession," the U.S. economy would have to be described as having been in its eighth business cycle recession of the post-World War II period for six months already. However, as explained below, it is useful for economic analysis and policy to distinguish carefully between periods of subnormal (low positive or even zero) growth and periods of absolute, cumulative decline in aggregate economic activity. The essentially flat trend of the past several months does not provide the required evidence of the latter development. Unless the decline deepens and widens further in 1981:4, the episode is likely to go down in history as a major slowdown rather than a recession.

But of course the quarterly national income and product data tell only a part of the story (and they tell it, on the current basis, in very preliminary, i.e., uncertain, terms). There is much additional, prompter and often firmer, evidence from monthly cyclical indicators, and lately these data have begun to paint a picture of a weakening economy. Accordingly, forecasters have been lowering their expectations, but the view that the fourth quarter will bring some incipient recovery after the stagnant summer apparently has continued to be widely held.

The most recent figures, mainly for September (the month for which no direct information is as yet available from the GNP data), indicate a definite deterioration that threatens to spread and spill over into the fourth quarter. The president himself stated on October 18 to reporters that a "slight" and, he hoped, short recession was under way. Some private economists quickly observed that it is still too early to call a recession, and many experts would probably agree. But the statement contained a prediction which is certainly not inconsistent with the bad news that is coming in.

Indeed, once a general downturn occurs it is usually followed by a decline which accelerates before bottoming out and which is not directly controllable. I shall argue that a recession, as defined and observed in historical terms, is still not inevitable but also that, under the current conditions, a recession could easily develop and would then not necessarily be either very mild or very short.

Some Historical Observations

Business cycle contractions (a more descriptive and less politically loaded term for recessions) are, like expansions, cumulative processes which are best defined according to the "three Ds" – not only duration, but also depth and diffusion. The current weakness may already qualify as having lasted long enough, but so far the observed declines in most of the leading indicators have been rather shallow, and the same applies *a fortiori* to the coincident indicators. Moreover, until very recently these declines were not very widespread, as the really bad news emanated from a few major sectors, notably housing and autos.

Each of the seven recessions since 1948 was preceded by a slowdown phase characterized by subnormally low but still predominantly positive growth rates, but on three occasions (in 1951-52, 1962-64, and 1966-67) the retardations did not acquire the momentum of a generalized absolute decline, although many had predicted that they would. Usually, a slowdown would be less troublesome than a contraction, even though it is easy to conceive exceptions to this rule (a protracted slack period could be more painful than a short and mild recession).

The technical issues involved in defining and identifying recessions (and other business cycle phases) are of little general interest, but it is always important to distinguish between "facts" pertaining to the more or less ascertainable past and predictions pertaining to the always uncertain future. The most widely recognized business cycle chronologies stem from the long line of work associated with the National Bureau of Economic Research. They are determined *ex post facto*, on the basis of reasonably well established data, hence often with lags that are subject to much criticism. But this procedure works well, whereas a hastier one would cause avoidable controversies and confusing revisions of the results. Under the NBER criteria for identifying and dating business cycles, the evidence for the recession is still not conclusive.[2] Thus the statement that the economy is in a recession (in the NBER sense) implies at the present time a forecast, and a forecast, however plausible, is not to be equated with a fact.

In practice, to be sure, forecasts are what interest people most, since they are necessary for timely decision making under uncertainty. We shall pay most attention to the widely held expectations and their likely drift under the impact of current news.

Late Summer Forecasts for the Year Ahead

Only a minute decline indistinguishable from zero growth is predicted for real GNP in 1981:3 by the median forecast from the latest ASA-NBER business outlook survey, but most of the respondents attach high probabilities to the event that output will go down (the average of these estimates is 55 percent, a very high figure by past standards). However, the participating business analysts and economists generally expect growth to resume, though hesitantly, in 1981:4 and to increase significantly in 1982. In constant dollars, GNP is to increase 3.5% between 1981:3 and 1982:3 but at an accelerating pace (2.4% in 1981:4 and 4.5% in 1982:3, all these being annual rates). Should these predictions come true, the answers to our initial questions about whether the economy is in a recession or is heading toward one would be clearly *no* on both counts.

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[1] This article was completed before the Commerce Department's release (on October 21st) of preliminary third quarter GNP statistics.

[2] This is, of course, my own opinion and should not be attributed to NBER or anyone else.

Inflation rates have already registered substantial declines this year, conforming to the rule that major slowdowns and recessions result in a temporary moderation of upward price pressures. The gradual recovery is expected to aid rather than hinder this welcome process. The implicit price deflator will rise 8.8% in 1981, 8.0% in 1982, and 7.5% at annual rates in the first three quarters of 1982, according to the median ASA-NBER forecast. In terms of the consumer price index, inflation is projected to decline from 9.2% in 1981:3 to 7.8% in 1982:3.

It is, of course, the persistence of high real interest rates that is the major reason for worrying about recession prospects as well as about how the financial markets perceive the longer-term inflation prospects today. The short-term rates have turned down in recent weeks but the long-term rates have responded but weakly. These are late and so far slow movements, which leave the rates on bank loans and the corporate bond yields in the unprecedentedly high upper-teens range. Allegedly, the main reason for the persistence of high interest rates is the widespread fear of soaring budget deficits, but in the past even relatively larger deficits did not have any comparable systematic effects. If the economy does not pick up great strength in the near future and inflation continues to moderate, which is what most forecasters now anticipate, then it is indeed hard to see why interest rates should not be heading down, though this trend may well be slower and less continuous than would be desired. Thus the median forecast from the September ASA-NBER survey has the 3-month Treasury bill rate decline from 15.1% in 1981:3 to 12.7% in 1982:3. The average yield on new high-grade corporate bonds, however, is projected to come down much more slowly, from 15.5% in 1981:3 to no less than 14.1% in 1982:3.

A Note on the Forecasts

Composite forecasts from business outlook surveys tend to outperform significantly over time most of the individual member forecasts. For example, only minorities of one-fifth to one-third of the total number of the more regular participants in the ASA-NBER surveys (79 respondents to 12 or more surveys) have had lower mean square errors than the corresponding group average forecasts. What happens is that over time most members' predictions tend to fluctuate above and below the averages, so that few individuals are *consistently* better than the group. In short, average predictions from a regular and broadly representative survey of professionals have demonstrably a favorable record in comparative terms, which incidentally supports the longstanding practice of presenting the overall ASA-NBER forecasts in each issue of ECONOMIC OUTLOOK USA. Of course, macroeconomic forecasts, even from the most reputable sources, often turn out to have been seriously in error, particularly over spans of more than two or three quarters and with respect to missing downturns.

Another relevant finding of a general nature is that short-term economic forecasts benefit considerably from being up-to-date and incorporating the most recent information that matters. Thus late-quarter predictions tend to be more accurate than early-quarter predictions from the same source. A corollary with a rather negative connotation is that the forecasts have a short staying power (hence the popular admonition to "forecast frequently").

Monitoring the News

The latest news, subsequent to the survey replies received by mid-September, have been largely adverse, increasing the already sizable risk that the ASA-NBER survey forecasts may prove too optimistic. Nonfarm employment declined according to both the household and the establishment surveys, as did the ratio of civilian employment to population of working age and the average workweek in manufacturing. The total unemployment rate rose and the weekly insured unemployment data indicate further deterioration. Housing starts and permits dropped sharply, industrial production and manufacturers' new orders turned down, and some presumably unintended inventory accumulation occurred as the stock-sales ratio continued to drift up even while business sales weakened. Deprived of the prop of temporary rebates, purchases of cars and trucks are evidently liable to further slippage, and significant cutbacks in automobile assemblies are planned for 1981:4. Further danger signals are being emitted by an increasing number of leading indicators.

Responding to this news and the worsened outlook for profits, the stock market has dropped at an irregular but accelerating pace (most of the 15% decline from the secondary June peak occurred in September and October). The slump in the financial markets, which has its own depressant effects on business capital spending plans and on consumer confidence among the disappointed asset owners, has not been stemmed by the recent easing of interest rates.

Given the hightened sensitivity of the markets to any indications of a more relaxed monetary posture (which would be widely read as a premature abandonment, hence failure, of the counterinflationary effort), the Fed wants to be seen as resolutely resisting pressures to reflate, no matter what their source. At the same time, the signals from the growth rates of M1-B and M2 diverge and are difficult to interpret; moreover, in this era of major financial innovations, simultaneous control of both aggregates is anything but easy and assured.

The strong rise in U.S. exports in 1978-79 has reversed sharply since early 1980 because of both the rapid appreciation of the dollar and the protracted sluggishness of the domestic economies of our principal trading partners. While exports flattened, U.S. imports of goods and services surged (after having dropped during the recession of 1980). Thus the trade balance peaked in 1980:3 and declined drastically thereafter. Under the conditions of a slow recovery, no significant improvement on this front can be expected in the year ahead, and indeed none is predicted by the ASA-NBER survey.

2

Outcomes and Odds

A full-scale recession would insure and accelerate the decline in interest rates and bring about a significant moderation of wage and price increases. Inflation would probably decline less than interest rates so the real burden of the latter would ease. This would eventually help revive fixed capital investment and exports and aid in the recovery of the financial asset markets.

The costs of such a development, however, would be felt much sooner than any of the above benefits, and they would be heavy: unemployment rising from already high levels well into 1982, mounting government budget deficits, and pressures to reverse the anti-inflationary monetary policies. The hopes for an impending recovery would suffer a setback, with important economic and political consequences at least in the short run.

Fortunately, a general, cumulative business contraction is not yet clearly in evidence, nor is it foreordained by past events. Working against it are the enacted three-year tax cuts, which promise a sequence of rises in spendable incomes of the "permanent" variety. Whatever their other intended effects on the supply side (which are in any event not within immediate sight), the near-term result of these tax reductions should be some stimulation of consumer spending. Indeed, the forecasters count on moderate but steady gains in real personal consumption expenditures during the year ahead, as illustrated by the overall results of the ASA-NBER survey.

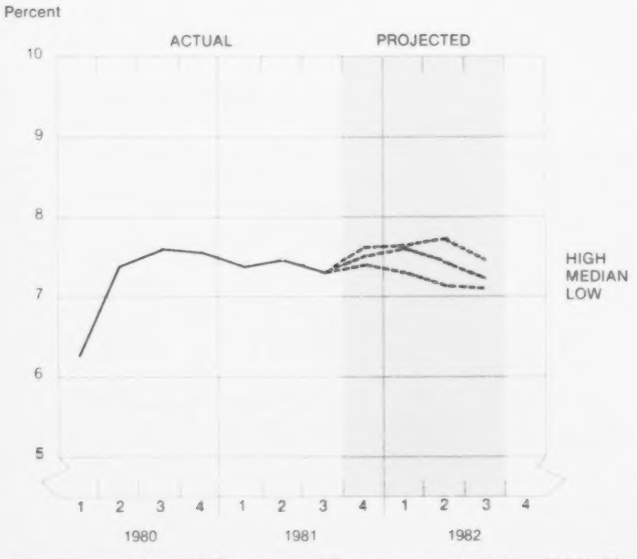
The other major reason why a full-fledged recession may be averted is that interest rates have turned down and are expected to continue declining. Transitory and partial reversals may occur but need not do much damage. The scenario of a slowly recovering economy seems actually to be compatible with somewhat greater declines in both the inflation and the interest rates than those now envisaged by most forecasters. At lower levels of interest rates, the pro-investment policies of deregulation and tax incentives to business will become more effective, too, which would help bring about a gradual increase in real capital outlays by business and households in 1982, more or less in line with the survey predictions. (Here it is assumed that the money and credit conditions will not be prohibitively tight.)

In sum, although the odds have been lately shifting in favor of a recession, the outcome is still uncertain. The immediate prospects are poor (at best a resumption of a gradual recovery after a lengthy stall), but the longer-run outlook for the economy is decidedly better.

October 1981

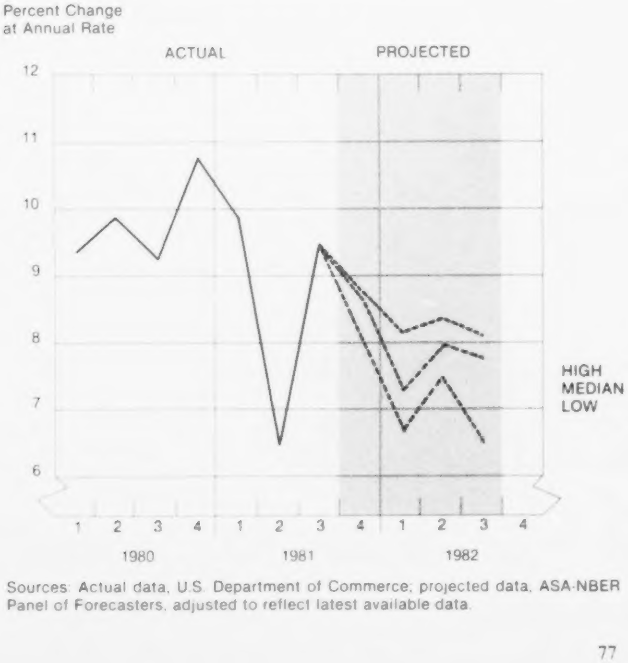
Postscript, 10/29/81: The large and widespread declines during September in the principal leading indicators markedly increase the probability that the Spring-and-Summer slowdown is turning into a contraction. The leading index has declined about 5.4% since its peak in April. The coincident index, which like real GNP had been essentially flat for several previous months, declined slightly in August and more decisively in September.

UNEMPLOYMENT RATE



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters, adjusted to reflect latest available data.

GNP IMPLICIT PRICE DEFLATOR



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters, adjusted to reflect latest available data.

Consumers Discouraged by High Interest Rates

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Improvement Stalls

In the July-September 1981 surveys, the Index of Consumer Sentiment was 74.8, less than a one point gain from the second quarter figure of 73.9, and 7 Index points above the year-earlier reading. Following a rapid recovery from the second quarter 1980 low of 54.4, the Index rose to 72.1 by the fourth quarter of 1980 and since then has remained at that same level. The growth in favorable economic expectations, initially stimulated by declines in inflation and sustained by greater confidence in economic policy, has been overwhelmed by reactions to high interest rates. Unfavorable attitudes toward buying conditions remain widespread, having shown no improvement during the past year.

The recent decline in optimism was concentrated among residents in the North Central region (where the Index declined nearly 4 points from the second to third quarter 1981 surveys). In contrast, residents of each of the other major geographic regions posted a 1-4 Index point improvement. During the past year, respondents under age 35 posted the greatest improvement in sentiment (11 Index points), while respondents aged 55 or older posted the smallest improvement (3.5 Index points).

Personal Finances

Evaluations of personal finances improved somewhat during the past year. The proportion of all families reporting improved personal finances rose to 33 percent in the third quarter 1981 surveys, up from 31 percent in 1980:3, while unfavorable evaluations fell to 35 percent, down from 40 percent one year earlier. When asked to explain how their financial situation had changed, the proportion of families that mentioned receiving income increases declined during the past year, but this was coupled with a greater decline in the proportion that mentioned higher prices.

While a somewhat greater number of families in the third quarter 1981 surveys reported that their financial situation had worsened rather than improved during the past year (33 versus 35 percent), almost twice as many families expected improvement rather than deterioration in the year ahead (31 versus 17 percent). Following rapid gains from late 1979 into early 1980, the proportion expecting further improvement in personal finances has remained largely unchanged during the past year.

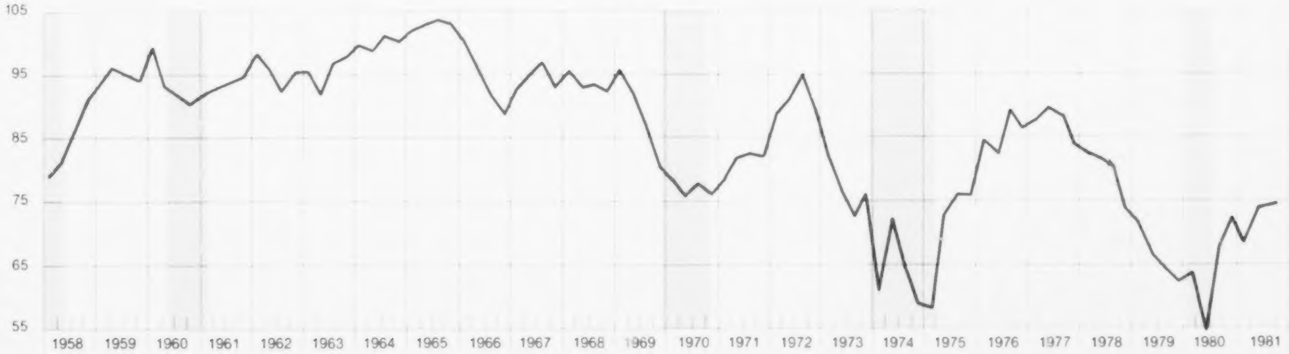
The maintenance of favorable personal financial expectations was due in large part to favorable nominal income expectations, coupled with declines in expected inflation rates. In the third quarter 1981 surveys 30 percent of all families expected annual income increases of 10% or more, above the 25 percent recorded a year earlier. The proportion of families expecting no increase or income declines also rose in frequency during the past year (from 34 to 37 percent), indicating a greater divergence or polarization in income expectations than one year earlier.

Inflation Expectations Moderate

The third quarter 1981 surveys continued to document declines in both the current and expected rates of inflation. Among all families, the average reported increase in prices during the prior year was 11.4%, down from 14.5% reported in the third quarter of 1980. Consumers expected the rate of inflation to average 6.9% during the year ahead in the 1981:3 surveys, down from 7.4% in the second quarter and 8.5% a year earlier. Since the peak expected inflation rate of 11.9% was recorded in the first quarter of 1980, the expected rate of inflation has declined a total of 5 percentage points.

INDEX OF CONSUMER SENTIMENT

February 1966 = 100



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

Since early 1980, when expected inflation rates for the short term (11.9%) exceeded long term price expectations (10.5%), the decline in short term price expectations has been somewhat greater than in long term expectations (see below). By the third quarter of 1981, consumers expected an average inflation rate of 7.3% over the longer term, which was somewhat above the 6.9% inflation rate they expected during the year ahead. While most of the decline in long term price expectations was recorded in 1980, significant declines in short term price expectations were recorded in early 1981. Since short term price expectations have fallen below the average rates expected over the longer term, we can infer that the lower short term inflation rate is expected to be temporary.

Expected Annual Increase in Prices During Next...	1980:1	1980:3	1981:1	1981:3
One year	11.9%	8.5%	7.7%	6.9%
5-10 years	10.5	9.0	7.2	7.3

Shifting Reactions to Inflation

During the past decade, the appeal of saving and the distaste for debt has been significantly influenced by the inflationary environment. When respondents were asked in the August 1981 survey about their readiness to draw on savings or incur new debt in order to make a major purchase, an increased reluctance to do either was recorded (see the table). Among all families, the proportion reporting a willingness to use savings fell from 35 percent in 1979 to 29 percent in 1981. The increased reluctance to use savings was especially strong among families with incomes of $25,000 or more. Consumer willingness to use credit to make major purchases also declined, falling from 17 to 13 percent. The sharpest decline in willingness to incur debt came among middle income families ($15-25,000), with the proportion willing to use credit falling from 26 to 9 percent.

Among all families, the proportion that thought it was a "bad idea to save as much as possible in times of rapid inflation" fell from 23 percent in 1979 to 19 percent in 1981, while the proportion of all families that thought it was "better to borrow as much as possible in times of inflation" fell slightly, from 16 percent in 1979 to 15 percent in 1981. Attitudes toward saving and debt varied significantly among income subgroups. High income families were most likely to express the opinion that it was better to borrow and a bad idea to save in times of inflation; however, the proportion that viewed saving with disfavor fell from 35 percent in 1979 to 29 percent in 1981, and the proportion that favored borrowing fell from 29 to 23 percent. Although the recent moderation in inflation is largely responsible for these shifts, the appeal of advance buying as a means to cope with future inflation is, nonetheless, still viewed with favor. In 1981, the proportion of all families that had a favorable opinion of buy-in-advance price rationales rose to 31 percent, from 25 percent in 1979.

Business Conditions

When asked whether they had heard of any recent changes in business conditions, respondents mentioned favorable news items only slightly more frequently in 1981:3 (26 percent) than a year earlier (24 percent), while reports of unfavorable developments fell substantially (to 49 percent from 79 percent). In comparison with last year, fewer respondents mentioned reports of spreading unemployment (33 to 17 percent) and fewer mentioned inflation (12 to 4 percent). The proportion of respondents that could not recall *any* recent changes in business conditions increased from one-third to one-half of all families during the past year. Consequently, rather than a spreading awareness of positive developments, the net improvement in the mix of news reaching consumers reflected fewer multiple mentions of unfavorable developments as well as an overall decline in awareness of any change.

Although the majority of all consumers continue to view current business conditions as having worsened rather than improved during the past year, significant gains have been recorded since the 1980 low point. Among all families, 51 percent reported in the third quarter 1981 surveys that they thought business conditions had worsened during the past year, down from 77 percent in the 1980:3 surveys. Similarly, the proportion reporting that business conditions had improved rose from 15 percent to 31 percent during the past year.

Following the rapid improvement recorded from late 1979 into early 1980, the proportion expecting improvements in business conditions has remained largely unchanged during the past year. In the third quarter 1981 surveys 34 percent held favorable and 19 percent held unfavorable expectations for business conditions in the coming year. When asked to explain why they expected business conditions to improve or worsen, 25 percent of

CONSUMER REACTIONS TO INFLATION, 1979 and 1981

	To Make Major Purchases Given Current Situation...				In Times of Rapid Inflation...					
	OK to Use Savings		OK to Use Credit		Bad Idea to Save		Better to Borrow		OK to Buy in Advance	
Family Income Group	**1979**	**1981**	**1979**	**1981**	**1979**	**1981**	**1979**	**1981**	**1979**	**1981**
Less than $15,000	33%	22%	14%	14%	17%	16%	9%	12%	26%	31%
$15,000 – $24,999	40	29	26	9	25	19	17	14	25	35
$25,000 or More	43	27	24	20	35	29	29	23	24	30
All Families	35	29	17	13	23	19	16	15	25	31

respondents made spontaneous favorable reference to the Reagan administration and government economic policies, down from 27 percent in the second quarter and 33 percent in the first quarter 1981 surveys. Although the initial rapid improvement in expected business conditions can be attributed to significant declines in unfavorable references to inflation, the maintenance of business expectations at these improved levels has been largely due to favorable evaluations of government economic policies.

Confidence in government economic policy to combat inflation and unemployment remained at much improved levels in the third quarter 1981 surveys. Among all families, 30 percent favorably rated government economic policy, up somewhat from the 28 percent recorded in the second quarter but greatly above the 9 percent recorded a year earlier. Unfavorable evaluations of government policy increased to 21 percent from 18 percent in the second quarter, but they also remained significantly below the 44 percent recorded in the third quarter of 1980.

Expected trends in unemployment did not worsen during the past year, but they did not improve—more of the same is expected. Among all families, 37 percent reported that they expected unemployment to increase during the year ahead, unchanged from the second quarter 1981 surveys and down from 46 percent in the third quarter 1980 surveys. The proportion that expected unemployment to decline fell slightly from 17 to 16 percent during the past year. Those who expected unemployment to remain at the same high current levels showed the greatest increase, rising from 35 to 45 percent in the past year.

Interest rate expectations have followed an especially volatile path during the past year. Interest rates were expected to increase by 36 percent of all respondents in the third quarter 1981 surveys, similar to the year-earlier reading. Since the start of 1981, the proportion expecting interest rates to decline fell from 41 to 28 percent, while the proportion expecting them to remain at the same high levels rose from 23 to 32 percent. As with unemployment, high interest rates are expected to prevail.

Buying Attitudes Weaken

Attitudes toward buying conditions for houses again neared record low levels in the third quarter 1981 surveys. Among all families, just 19 percent reported favorable buying conditions for houses, down from 39 percent one year earlier, while unfavorable buying attitudes rose from 55 to 74 percent. The overwhelming reason given by consumers for these negative views was high interest rates and tight credit conditions, mentioned by 76 percent of all families. When interest rates temporarily declined in mid-1980, favorable house buying attitudes grew rapidly, but they were quickly reversed when interest rates again rose in late 1980 and 1981.

Unlike the pattern of improvement and subsequent decline in house buying attitudes, attitudes toward market conditions for cars and large household durables have remained largely unchanged during the past year. Since the third quarter of 1980, the proportion holding favorable car buying attitudes in each quarter remained in the narrow range of 38 to 40 percent, while the proportion holding unfavorable attitudes varied from 47 to 52 percent. When asked to explain their views of buying conditions for vehicles, fewer respondents mentioned rebates or price discounts, and more respondents mentioned high interest rates. In the 1981:3 surveys, 27 percent of all families mentioned high interest rates and tight credit conditions, a new record level, exceeding the 25 percent recorded in both the 1981:1 and the 1980:2 surveys.

Attitudes toward market conditions for household durables also remained largely unchanged during the past year. Among all families, favorable exceeded unfavorable attitudes by a margin of 51 to 34 percent in the third quarter 1981 surveys. During the past year, the proportion holding favorable attitudes stayed in the narrow range of 47 to 51 percent.

Summary Outlook

The third quarter 1981 surveys indicate that consumer attitudes and expectations have followed a divergent course during the past year. Lowered price expectations, a more optimistic outlook for the economy as a whole, and increased confidence in government economic policy stand in sharp contrast to widespread unfavorable buying attitudes due to heightened concerns with high interest rates.

Growth in consumer sales during the balance of 1981 and early 1982 will continue to be slow and uneven. Sustained reductions in interest rates, as well as sustained increases in real disposable income, are needed before discretionary consumer purchases show robust growth. Saving rates can be expected to increase, both because of additions to financial savings and reserves and because of increased debt repayments compared with debt incurrences.

October 1981

6

The Economics and Politics of the Supply-Side View

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Professor of Economics
The University of Michigan

Economic policy is, at least for the moment, set on a course which is distinctly different from the past. What are the prospects that the new policy will successfully produce the set of outcomes that its proponents hope to achieve—a reinvigorated economy with a smaller but more effective public sector; an incentive structure designed to produce more effort, saving, and investment; a business climate more conducive to innovation and productivity growth; and a sharply lower rate of inflation?

Seldom has an economic experiment been put in place with less conventional credentialing by professional economists. This is partly because supply-side policies represent a political statement at least as much as an economic perspective, partly because aspects of the supply-side view of economic life are not testable by assessing their consistency with the facts of economic life: supply-siders argue that many such facts are irrelevant because they come from a world where important expectational forces were substantially influenced by demand-side considerations.

What I judge to be the theoretical core of supply-side economics can be summed up in the following proposition:

1. Entitlement programs have eroded work incentives; cutting back on those programs will restore incentives and reduce the tax burden on the working and investing population.
2. The tax system is biased against effort, saving, and investment; reducing tax rates, especially marginal rates, will have a substantial effect on labor supply, saving, and investment.
3. Economic progress has been significantly impeded by an antibusiness climate of regulation designed to protect consumer and employee groups against various risks: many of these regulations not only require large and unproductive investments, but have adverse cost/benefit ratios in terms of protection offered versus the costs of obtaining it.
4. The stubbornness of inflation forces is largely due to the expectational climate built up by the demand-side oriented fiscal and monetary policies followed by past administrations: modifying the expectations of decision makers will thus permit a much more rapid reduction in inflation rates, at less social cost, than would be predicted from past history.

In addition to the economic content of supply-side ideas, there is a strong political content as well. Supply-siders and their political allies are apt to believe that government in general is too big and inevitably inefficient, that an impersonal monetary policy is the only effective way to control the macroeconomy, that free markets are the only way to allocate resources efficiently under any and all circumstances, and that politicians of any persuasion are not to be trusted to carry out promises. Many of those who favor the current set of supply-side policies do not necessarily buy the economic underpinnings, or at least not all of them. Rather, they see supply-side theory and practice as a way to achieve other desirable objectives, and are willing to overlook its shaky intellectual foundations.

Whether or not supply-side policies will work depends ultimately on the adequacy of its economic underpinnings; from that perspective, the political content that is the basis for much of its support is largely irrelevant. Thus the basic question is: what can be said about the central analytical themes of supply-side economics?

Entitlements and Incentives

There is a good bit of evidence to support the general thrust of the supply-side argument—that entitlement programs have sapped work incentives. Most economists would probably agree with the view that extended unemployment compensation benefits reduce people's willingness to seek work or to accept work that is less well paid than their previous occupation, and that the welfare system with its extremely high implicit marginal tax rates has discouraged people from entering or staying in the labor force, etc.[1]

The argument here is not whether such programs tend to reduce work incentives—they almost certainly do. Rather, it is a question of magnitude—is the incentive reduction aspect of the programs a major defect or a minor blemish? Moreover, is the incentive reducing effect sufficiently important to outweigh the income distribution aspects of the program? On the latter issue, economic analysis will not do much good, and value judgments are at issue.

The proposition that reducing marginal tax rates will have a significant effect on labor supply and effort for the working population is much more dubious. Here, there is quite a lot of evidence and general agreement among economists: the effect of reduced marginal tax rates on effort is quite minor, and much of the evidence suggests that there will be no effect at all. In fact, one can make a case that reducing marginal tax rates will actually cause less work effort rather than more—people may choose to work as many hours as needed to maintain a satisfactory consumption level, and increasing their after-tax income will make it possible to realize the consumption goal with fewer hours.

Saving and Investment Incentives

It is true that the tax system is biased against saving and investment, relative to alternative tax systems that one could imagine. But that's a long way from saying that modification of the tax structure along the lines proposed by supply-siders will cause a great upswelling of saving and investment. There is a good bit of empirical evidence here, although much of it speaks only indirectly to the issue. On the whole, I would assess the potential impact of supply-side policies on saving decisions to be substantially weaker than the potential impact of such policies on investment decisions.[2].

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[1] Incidentally, it is also true that some entitlement programs appear to have had major unintended effects on family structure—divorce, for example—which may be much more important than the labor supply effects.

On savings, there really is no persuasive evidence at all that personal or national saving rates would be impacted by modifications of the personal income tax structure, as argued by the supply-siders. Saving behavior is influenced by a lot of factors, and after-tax rates of return do not loom large among such influences as best we can tell from the empirical evidence. In fact, as is true for labor supply responses, it is at least as plausible that increasing the after-tax rate of return on saving will cause people to save less rather than save more, and for the same reason—if people have wealth targets, they can reach them more easily with a higher rate of return on saving than with a lower one, and may therefore be induced to save less.

For investment, expected rates of return are crucial. But one needs a good deal more than a favorable tax structure to produce a favorable investment climate—business firms do not add to capacity without a robust forecast of higher sales, regardless of the tax climate for business profits, and the capital deepening that might result from a more favorable after-tax rate of return is a subtle and long-term effect that might or might not be importantly influenced by the tax structure.

Regulatory Climate

What may be potentially the strongest weapon in the supply-side arsenal is the impact of a change in the regulatory climate on private investment and on incentives to take risks. The evidence for the negative impact of present and prospective regulation on risk taking and investment decisions is not so overwhelmingly strong that one can confidently conclude that a change in the climate will produce a major impact on investment. However, the argument seems entirely plausible on theoretical grounds and has some empirical support. Business decision makers do seem to perceive the regulatory climate as one with a great many land mines, and tiptoeing through those mine fields does not seem conducive to bold investment strategies of the sort that we probably need in order to revitalize the economy. I would make the case by simply noting that bureaucracy generally stifles innovation, and whatever desirable social effects might be achieved by a vigorous regulatory climate, it is quite likely to create a distinct lack of enthusiasm for entrepreneurial adventure.

Inflation and Expectations

An important underpinning to the supply-side view of life is the role given to expectations in influencing a variety of decisions. Much of our recent economic history is consistent with the view that wringing inflation out of the U.S. economic system is likely to be a long and painful process, involving very substantial losses in real income and output for a very modest gain in lower inflation rates. Supply-siders argue that this history is largely irrelevant, since it results from a widely held expectation that economic policy will be used to prevent a serious or prolonged recession. And with an expectation that the government will bail the system out of any temporary weakness, no one has any incentive to modify behavior.

I am certainly not one to quarrel with the view that expectations have a lot to do with behavior. On the other hand, I would feel a lot more comfortable with the central focus given to expectational forces by the supply-siders if they showed any interest in actually studying expectations, or how expectations change in response to events, or what forces appear to influence expectations. But like most macroeconomists, supply-siders seem quite content to infer the force of expectations from observing consequences that could in theory be explained by expectational phenomena—a scientific procedure which has the great merit of avoiding conflicts between theory and data, but the great demerit of being untestable because it cannot discriminate among hypotheses.

Some of the expectational forces alleged to be important by supply-siders seem to me quite plausible, others much less so. For example, I think it is probably true that the stubbornness of inflationary forces in the U.S. economy is a consequence of the widespread expectation that policy will not tolerate extended periods of economic weakness. But it remains to be seen whether changing those expectations will have a major or only a minor impact on the cost of decelerating the inflation rate.

In other areas, the expectational views of supply-siders seem to me simply implausible. For example, it is alleged on theoretical grounds that the prospect of lower taxes on future income will shift labor supply from the present, when income is taxed at a relatively high rate, to the future, when income will be taxed at a lower rate. The notion that people will buy more present leisure because they expect tax rates to decline in the future is one that I find a little hard to relate to anything I think I know about behavior.

One should be careful not to single out supply-siders for criticism on this count. For example, most macroeconomists appear to believe that people make saving, labor supply, and retirement decisions on the basis of their expectations about social security entitlements in the distant future. Thus they calculate a variable called "social security wealth" and assume it represents a decision parameter in the household utility function. Perhaps so, but I doubt it. People do have expectations of retirement income, and there is likely to be some influence on what they do currently in terms of what they expect. But I doubt that the computed actuarial value of future pension rights, properly discounted to the present, is a very good representation of that expectational structure. One indication of this problem is that pension rights, and even more so changes in those rights, are pretty hard to calculate: for example, there is an enormous advantage to continuing work between the ages of 62 and 65, in terms of the value of future social security benefits, but that is not even realized by many of those who have written on social security problems, let alone by the potential recipient.

Summing up the pluses and the minuses, it turns out that what many see as the most important elements in supply-side economic policy—the impact of changes in tax rates on labor supply and the flow of saving—are the elements that are most in conflict with what we know about behavior, and the least likely to be effective. The other parts of the program—the effect on incentives of cutting entitlements, the effect on the expectations of price and wage setters of changing the government's role in setting limits to recession—seem more promising but represent views supported by evidence that is shaky at best and often either casual or impressionistic.

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[2] See F. Thomas Juster, "Saving, Economic Growth, and Economic Policy," in the Summer 1981 issue of ECONOMIC OUTLOOK USA.

Current Policy Issues

Whether supply-side economics works or not will be determined over the next several years—although there will doubtless be room for significant disagreement about why the economy does whatever it winds up doing. But the current economic policy issue—should the budget be cut by another $13 billion and taxes raised by about $3 billion, in order to reduce the size of the prospective deficit in 1981-82—is not really a supply-side issue at all. Rather, it seems to represent an attempt by the administration to allay the concerns of the financial markets about the impact of the massive tax cut on the present and prospective federal deficits, in the face of an increase in the estimated current year deficit that results largely from an economy whose behavior departs significantly from the economic assumption built into the administration's original projection. Thus the issues are: do deficits per se matter? And secondly, are deficits per se important if the financial markets think they are important?

Few serious macroeconomists, supply-side or otherwise, regard deficits per se as an important target variable for economic policy, certainly not in the short run. The only plausible case for targeting on deficits is that they are symptomatic of an inability to make tough political decisions, and the only way to control the weakness of political decision makers is to hold their feet to the fire, as it were, by imposing a balanced budget discipline.

Whatever merit that argument might or might not have as a long-run strategy for budget making, it certainly has little or no relevance to the situation currently facing the U.S. economy. We are, as the article by Victor Zarnowitz suggests, apparently slipping into recession: the most recent evidence suggests that the only question is how long and how deep will the recession be. In that environment, cutting back expenditures to bring the budget closer to balance is a prescription for foolishness.

Recessions represent a cumulative process of economic deterioration—economic weakness feeds on itself and spreads to sectors that were previously holding up, generating a cumulative sequence of weakening markets, deteriorating expectations, further weakening of markets, etc. In that environment, adding another $16 billion of weakness to an already soggy economy guarantees a worsening of whatever the cumulative deterioration might otherwise have been. The economy might even react to an additional nudge of this sort by weakening enough to produce the unpalatable outcome that the attempt to reduce the deficit is totally thwarted—the deterioration of incomes being sufficient to cause tax revenues to drop about as much as expenditures are cut. While that's an unlikely outcome—as is the supply-side scenario that cutting tax rates will stimulate enough activity to cause actual tax revenues to rise—it is not an impossible one.

To make matters even worse, the recommended cuts in expenditures will have a significant impact on areas that are crucially important to the long-term growth and development of the economy: virtually every major research and development activity supported from public funds has been earmarked for reductions in this "second round" of budget cuts. Thus not only would adoption of the administration's recommendation make a weak economy even weaker, but it would also result in cutting back on activities that are crucially important to the longer run growth of the system. It is hard to imagine a policy with less going for it, especially if its main purpose is to help Wall Street feel better about the president's overall program.

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The Impact of Natural Gas Deregulation on American Families

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Increasing energy prices to levels which cover full resource costs is the keystone of recent American energy policy. During the Carter administration legislation to accomplish this through phased deregulation of petroleum and natural gas prices was passed. One of President Reagan's first executive acts was to accelerate the deregulation process by ending domestic oil price controls eight months ahead of schedule. The economic shock of this sudden move was relatively short-lived and not nearly as severe as anticipated by many economists and most liberal politicians. The Reagan administration is now considering a similar acceleration in decontrolling natural gas prices, and supporters of this action are using the experiences of the deregulation of domestic oil prices in their arguments. There are, however, some important differences in the markets for these two major energy sources that must be recognized in the debate. Before going on to a discussion of these differences it is worthwhile reviewing some of the similarities of the two policies as well as the rationale for the current natural gas deregulation legislation.

Controls-Induced Inefficiencies

The situations are similar in that regulations which maintain prices below true resource costs invariably lead to inefficiencies in both production and consumption. Examples of inefficient utilization of oil and natural gas are plentiful. A national average automobile fuel economy of less than 14 miles per gallon in 1976 is an obvious example of inefficient utilization of petroleum resulting from regulated prices. Furthermore, such inefficiencies are not easily remedied by legislation. As reported earlier in this periodical (Vol. 6, No. 2: Spring 1979) the fuel economy standards of the Vehicle Information and Cost Savings Act of 1974 were being thwarted by the tendency of American consumers to purchase light trucks and vans for commuting purposes as late as the 1976-1978 model years. This did not change until after the Iranian revolution in late 1979 when real gasoline prices began to increase rapidly. Similarly, the fact that natural gas is the dominant heating fuel throughout much of the deep South and Southwest—despite the fact that electric heat pumps are roughly 1.5 times as efficient on a primary energy BTU input basis in these climates—is a clear illustration of the sort of inefficiency being caused by continued regulation of natural gas prices. Regulation-induced inefficiencies in production result primarily from the fact that low prices call forth too little investment in domestic exploration and field development.

Carter/Reagan Legislative Responses

To eliminate these inefficiencies the Carter administration mounted a major legislative drive that resulted, in the case of natural gas, in the Natural Gas Policy Act (NGPA) of 1978. This law was designed to provide domestic producers strong incentives to search for natural gas while gradually increasing conservation incentives to consumers. The supply incentives were accomplished by allowing greatly increased well-head prices for new gas beginning in 1980. Conservation incentives would increase, via higher retail prices, as a larger and larger fraction of all gas sold became "new" gas and as the allowable price of this gas increased. The allowable price of new gas was designed to increase at a rate that would place it at the 1978 BTU equivalent price of world oil by 1985, when most gas would be deregulated entirely. Despite its complicated nature there is much to be said for the act. It maximized supply response while minimizing price shocks of the sort that contributed to the recessions of 1973-75 and 1980. Furthermore, efficiency of utilization was encouraged without transferring huge amounts of wealth to owners of gas wells which were profitable even under old (controlled) prices. Unfortunately, when the NGPA was passed it was assumed that oil prices would remain approximately constant in real terms until 1985. The radical increases in world oil prices following the Iranian revolution and boycott were not anticipated, and the allowable price schedule under the existing law will not result in a smooth transition of prices in 1985. The Department of Energy (DOE) now estimates a sudden 40 percent increase in retail natural gas prices in 1985. Fortunately, the law has been rather successful to date in both increasing supply and reducing demand, and it is reasonable to consider modifying the legislation to accelerate decontrol now while supplies are good.

Patching up the NGPA to insure a smooth transition to decontrolled new gas prices in 1985 is, however, the least radical (and popular) proposal being considered by the Reagan administration. The most favored proposals involve complete decontrol of natural gas in 1982 along with repealing the Fuel Use Act (FUA), which limits the use of natural gas as a boiler fuel by industry and electric utilities.[1] This proposal would, according to the DOE, result in roughly a 50 percent increase in retail natural gas prices during the first year and a transfer of $100 billion (net present value) from gas consumers to producers in the form of "increased producer surpluses" (formerly known as windfall profits) over and above that implied by the original legislation.

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[1] Normally, eliminating restrictions on the use of inputs such as natural gas leads to unambiguous improvements in economic efficiency. The Fuel Use Act, in combination with the Clean Air Act, however, *may* be approximating the most efficient long-run market outcome. The reason is that market-determined fuel prices fail to reflect the true societal costs of effluents produced in the combustion process. If users were charged the appropriate fee for effluents released to the environment, then natural gas prices would be bid up as users of dirtier fuels converted to the cheaper-to-use fuel. If the resulting "cleanliness premium" of natural gas were high enough, then large users would find it cheaper to use dirtier fuels and clean up the pollutants—taking advantage of the very large economies of scale that exist in cleaning up combustion products.

Oil and Gas Decontrol: Two Major Differences

The DOE projections of first year retail price increases lead to the first major difference between the natural gas and petroleum decontrol situations. When the administration decontrolled oil in February 1981, retail prices did not increase more than 15 percent at the retail level. The timing of the move was excellent. Primarily because of recessions in Western industrial countries there was a glut of crude oil on the world market. Oil refiners found themselves in a buyer's market for crude. Increases in domestic oil prices were largely offset by decreasing reliance on higher priced OPEC oil and proportionately increasing reliance on lower priced Saudi oil. An even more important factor in the failure of oil decontrol to increase retail prices is that there were no effective controls on demand prior to decontrol, nor were any needed. Oil was already the most expensive boiler fuel available; natural gas users were not about to shift to oil. But if the FUA is done away with in the process of natural gas deregulation, there will be a very strong increase in the demand for natural gas as large boilers are switched from oil to gas.

The second major difference in the situations of oil and natural gas decontrol has to do with the nature of demand for these fuels in the household sector. Natural gas is used as a primary stationary fuel in residences for space and water heating and to a lesser extent cooking, while petroleum products are used primarily as mobile fuels for transportation.[2] Home based energy consumption is less of a luxury good than is personal transportation—a fact confirmed by its much lower income elasticity.[3]

The data in the first two columns of the table illustrate the point quite dramatically. In 1977 household utility expenditures (including water but dominated by energy) accounted for 5.9 percent of total family income overall. Because of the low income elasticity, however, this fraction decreased sharply with income level: For households with incomes low enough to place them in the bottom ten percent of the income distribution the fraction of income devoted to utility payments was 15 percent or six times the fraction (15/2.5 = 6) of income expended by households in the top ten percent of the income distribution. The burden of motor fuel expenditures is far less disproportionate as well as being only three-quarters as large overall. The high income elasticities of both automobile ownership and annual miles traveled is reflected by the fact that the fraction of income devoted to gasoline actually increases with income as one moves from the second to third and fourth income deciles (column 2). The burden of gasoline prices is, even so, greater for the poorest of households (4.9 percent of total income) than for the richest (2.7 percent).

UTILITY AND GASOLINE PAYMENTS AS A PERCENT OF INCOME, 1977 and 1979

Income Decile	1977		1979		
	Utilities (1)	Gasoline (2)	Utilities (3)	Utilities less Subsidy (4)	Utilities less Subsidy (5)
Lowest	15.0[a]	4.9[a]	12.9[a]	11.5[b]	10.7[c]
Second	9.1	3.5	8.2	7.9	8.1
Third	7.1	5.2	6.4	6.4	5.8
Fourth	5.8	5.2	5.2	5.4	5.8
Fifth	5.2	4.6	4.4	4.8	5.0
Sixth	4.6	4.8	4.3	4.7	5.0
Seventh	4.0	4.2	4.1	4.6	5.0
Eighth	3.7	3.9	3.4	3.9	4.3
Ninth	3.2	4.8	3.0	3.5	3.9
Highest	2.5	2.7	2.5	3.1	3.5
All	5.9	4.3	5.4	5.6	5.8

[a] Percent of total income.

[b] Percent of disposable income.

[c] Percent of two-year average disposable income.

Source: Panel Study of Income Dynamics, Wave Eleven (1977) and Wave Thirteen (1979).

Problems of Vertical and Horizontal Equity

The implication of these patterns of expenditures is that policies which increase the cost of home energy fuels are far more regressive than those which affect motor fuel prices—utility price increases hit those least able to pay much harder than gasoline price increases, while each has only minor impacts on more affluent households. In addition to this vertical inequity deriving from utility fuel price increases there is considerable variation in the impact of price increases within narrowly defined income groups (horizontal inequities), especially at the bottom of the income distribution. Sixty-two percent of the households in the bottom decile do not own automobiles and are, therefore, not directly burdened by increased gasoline prices. This means that the remaining 38 percent of the households in the bottom decile have gasoline expenditures that average 12.9 percent (4.9/.38) of their total income. Only two percent of the richest households do not own cars, and thus the gasoline burden of the richest car owners increases but slightly, from 2.7 to 2.8 percent. Similarly, one third of the households in the lowest income decile are living in situations where they do not directly pay for utilities (primarily because they rent small apartments with centralized heating and master metering). Thus, those poorest households who do pay directly for their utilities expend more than 22 percent of their incomes on utilities.

The data in column 3 of the table are derived from the most current available year of the Panel Study of Income Dynamics and indicate that the burden of utility payments actually decreased between 1977 and 1979. This reduction is partly the result of a milder winter in the latter year but also reflects price-induced conservation. Despite the reduced burdens when one looks at lowest-decile households who paid utilities, the average burden remains at 20 percent as compared to only 2.6 percent for those in the highest decile. This method of examining the regressivity is subject to the criticism that it overstates the actual problem because it ignores the progressive nature of our income tax system and the existence of low income energy assistance programs. For this reason we recalculated the burden as a fraction of after tax income and subtracted out any government subsidies for heating (see column 4). In 1979 the newly instituted government heating assistance programs had the effect of reducing the utility burden from 12.9 percent to 11.5 percent for households in the lowest income decile (8.2 percent to 7.9 percent in the second decile), while the larger tax bite at higher incomes had the effect of raising the burden of the very richest households from 2.5 percent to 3.1 percent. Again, the burden of utility payments for households in the lowest decile actually paying them remains high at 17.3 percent.

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[2] This is not to say that no one uses petroleum products for heating. In 1979 roughly 16 percent of all United States households used fuel oil as the primary heating fuel and *were* severely burdened by the 60 percent increase in fuel oil prices experienced after the Iranian revolution in the year preceding decontrol. Nationwide, however, there are three and a half homes heated with gas for each one heated with fuel oil.

[3] In similar analyses of data from the PSID Richard Coe estimated an income elasticity of utility expenditure one half the size of that estimated by Hill for gasoline demand. See, respectively, Chapters 10 and 11 in Duncan and Morgan, *Five Thousand American Families: Patterns of Economic Progress, Vol VIII* (Ann Arbor, Michigan: Institute for Social Research, 1980).

One further plausible explanation of the extreme burden which utility payments represent for the very poorest of families is that their incomes are only temporarily low while their utility consumption expenditures are based on their higher permanent income. The final column of figures in the table shows, however, that this is only a minor problem. When the 1979 utility expenditures (minus government subsidies) are expressed as a fraction of *two year* average disposable income, the burden of the poorest households in 1979 drops only from 11.5 percent to 10.7 percent (16.1 percent for those actually paying for their own utilities directly). Thus, we can conclude with considerable confidence that, as of 1979, the regressivity of policies which increased utility prices are real, substantial, and not eliminated by taxes or government assistance programs.

Problems of Weather Impact and Consumer Responsiveness

Another difference in the nature of the demand for natural gas and petroleum products which must be considered when comparing oil price and natural gas price decontrol is that natural gas demand is far more sensitive to weather conditions than is oil demand. Coe estimated a heating degree utility expenditure elasticity of unity.[4] Thus, a ten percent increase in the severity of the winter results in a ten percent increase in utility expenditures. There is no such sensitivity of driving to this sort of vagary of nature. The initial impact of deregulation of natural gas prices will depend to a large extent on the severity of weather conditions during the first years—a factor which can neither be anticipated nor controlled by the administration.

While households have demonstrated a substantial degree of responsiveness to both increased utility fuel costs and motor fuel prices there are some important differences between the two forms of conservation. First is the difference in the amount of time necessary to make adjustments in response to prices. The response to motor fuel price changes is considerably faster than to utility fuel price changes, for several reasons. Home heating equipment depreciates far less rapidly than do automobiles; thus, the energy using equipment in the home can be economically replaced at a far slower rate. Second, the energy requirements of the house are to a large extent a function of the basic structure of the building—something which cannot be rapidly modified. Minor modifications can and have been made to improve the thermal efficiency of dwelling units, and there is still some room for improvements in insulation and weatherization. A third difference in the price responses of home heating and transportation energy demand provides an excellent example of the inefficiencies induced by natural gas price controls. Much of the observed price response to increased utility fuel prices reflects fuel switches from higher priced petroleum to lower priced gas and is thus artificial in that expenditure reductions were accomplished without any real improvements in thermal efficiencies. This contrasts sharply to the situation with respect to automobiles, whose actual energy efficiencies have increased dramatically.

Problems of Excess Profits and Consumer Hardships

A final difference between oil and natural gas deregulation has to do with differences in the way excess profits and acute financial hardships induced by the policy were to be handled. Under the NGPA windfall profits were to be avoided by maintaining controls on old gas for all time, and extreme household burdens were to be avoided by insuring that retail gas prices would rise steadily but gradually so as to give households time to react. The deregulation of oil prices on the other hand would result in windfall profits to owners of old oil wells, and these were to be taxed away and earmarked, in part, for emergency energy assistance for households severely burdened by the increased prices. The Reagan administration is considering the deregulation of natural gas prices at the same time that they are proposing radical reductions in emergency energy assistance, foodstamps, and other programs targeted for relief of financial hardships of the poor. Furthermore, while the type of changes in the deregulation of natural gas prices being discussed will result in vastly increased producer surpluses (windfall profits), there has been very little talk of taxing them.

The difficulty with these proposals is illustrated in the chart, which presents the cumulative fractions of after tax income devoted to utilities and other household necessities for households who rely on natural gas as the primary heating fuel. After meeting expenses for these necessities most households still have at least half their after tax incomes unencumbered on average. Households in the lowest income decile, however, are left with only nine percent of their after tax income to pay for such "nonessentials" as clothing, medical bills, transportation and all other commodities. Presuming a winter no more severe than that of 1979 (upon which these figures are based), deregulation of natural gas would have the effect of removing two-thirds of this surplus for the lowest income households.[5] For more affluent households, however, the direct impact of increased gas prices is a trivial fraction of their unencumbered after tax income.

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[4] Coe, *Families, Vol. VIII*, p. 366.

[5] These figures are based on the assumption of a 50 percent first year increase in prices and on DOE data indicating that the fraction of total utilities made up of natural gas payments (for households using natural gas as the primary heating fuel) averages 58.5 percent in the Northeast, 52.5 percent in the North Central, 41.7 percent in the South, and 48.5 percent in the West.

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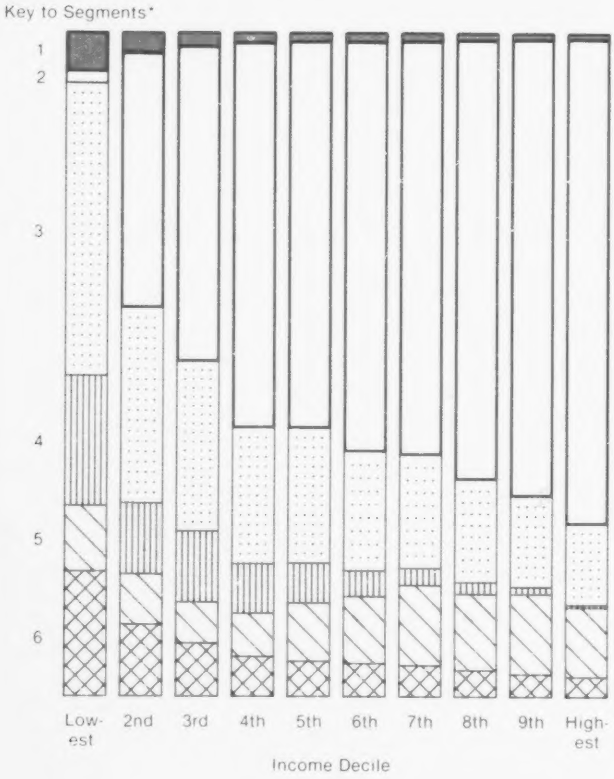
AVERAGE FRACTION OF AFTER-TAX INCOME DEVOTED TO BASIC NECESSITIES
(Households Who Pay for Gas Heat)



*1 = Added burden if complete gas deregulation occurs.
2 = Unencumbered income.
3 = Food payments.
4 = Rent payments.
5 = Mortgage and property tax payments.
6 = Utility payments.

Source: Panel Study of Income Dynamics.

The Economic Case for Decontrol

Although we have concentrated much of our discussion in this note on the problems implied by accelerated decontrol of natural gas prices, we do not want the reader to infer that decontrol is unnecessary. The present pricing structure results in large and real losses to our country. Glen Loury estimates these efficiency losses at roughly four and a half billion dollars annually as long as controls stay in effect.[6] These losses, which amount to more than $20 per person in the U.S., are "dead weight losses"—meaning they are losses to both potential consumers and producers. Current regulation of domestic gas also leads to excessively high energy imports. Loury estimates the reduction in oil imports resulting from immediate decontrol of natural gas demand (i.e., repealing the FUA) at roughly $41 billion over the next four years.

Referring to the 1954 Supreme Court ruling which originally established price control on gas, an early DOE policy paper to Reagan concluded: "Given these stakes [increased efficiency and reduced imports], can the administration afford to perpetuate a 27-year old mistake by continuing to subjugate energy policy decisions to income policy concerns?" I believe the answer is "no".[7] As the chart indicates there is room in the budgets of the majority of households to handle the direct impacts of increased natural gas prices. Furthermore, most households can still improve the thermal efficiency of their homes as well as make other adjustments to the increased prices. Nevertheless, there is a significant number of households who will be severely burdened by the increase, and the administration should be considering improvements in emergency energy assistance programs rather than their immediate elimination. Equity issues aside, a bad winter and continued recession could make natural gas decontrol politically untenable without such provisions for the truly needy.

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[6] Glenn C. Loury, *An Analysis of the Efficiency and Inflationary Impact of the Decontrol of Natural Gas Prices* (Natural Gas Supply Association, April 1981).

[7] At least no more so than it should be subjugated to national defense policy concerns as it was throughout the 1950s and 1960s, when oil import quotas were imposed so as to keep domestic production at levels sufficient to meet possible emergency defense demands.

Realignment in the 1980 Election

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Reagan's election has prompted speculation about a major party realignment in the United States. More than one political observer has suggested that the 1980 election and Reagan's subsequent Congressional policy successes are indicative of an enduring political shift whereby the Republicans will once again become the dominant party.

In light of recent public opinion polls which show an increasing proportion of citizens identifying with the Republican party, high personal regard for Reagan, and increased confidence in government, it is understandable that many people might see a growing trend in public support for Reagan's conservative programs and the potential for an enduring partisan realignment. Nevertheless, majority support for critical features of Reagan's policies is non-existent today, nor was it evident at the time of the presidential election. A harder look at the evidence suggests that the Reagan administration has misread the policy direction implied by his election victory and that a major shift in the relative strength of the two parties is not inevitable. Whether or not Reagan can establish a lasting mandate for his programs and produce a realignment depends largely on the future success of his policies and their effects on some long-term political trends.

Analyses of the 1980 American National Election Study conducted by The University of Michigan's Institute for Social Research (ISR) demonstrate that the ideological shift to the right has been overstated and is in fact limited in both scope and intensity. The proportion of people who think of themselves as conservatives has indeed increased recently (from 37 percent in 1978 to 44 percent at the end of 1980), but such labeling does not indicate a concomitant shift to the right equally across all policy areas.

Social issues, like abortion, busing and capital punishment, for example, were not the determining issues in the 1980 election; and neither has the growth in conservative self-identification shifted the public's views on these questions in Reagan's direction. In fact, during the past ten years the country has become increasingly tolerant of minorities, more supportive of women's equality, and firmly committed to the individual's right to have an abortion. The growth in conservative preference and its impact on the election did not spring from considerations of morality but was limited almost entirely to an increased concern with economic problems, particularly inflation and government spending, and with growing worries about U.S. military strength and prestige abroad.

Furthermore, in spite of the recent growth in the proportion of conservatives, ideology played a relatively less important role in determining how one voted in 1980 than it did in the 1972 or 1976 elections. It also had less impact on the election than did dissatisfaction with Carter's performance in handling both Iran and inflation. At the time of the election, the voting public had little regard for either Carter's or Reagan's abilities, but their dissatisfaction was more intensely directed at the incumbent and generally overshadowed ideological distinctions.

Similarly, the Democrats' loss of the Senate to the Republicans resulted more from a longer-term partisan realignment occurring in the South and Mountain states and from the generally precarious nature of Senate seats than from the recent ideological shift to the right. Moreover, ticket splitting (voting for candidates of alternate parties at the Congressional and presidential levels) also continued to increase in 1980, thereby undercutting the argument that the Republican gains at all levels of government were due to a common political shift in the population. Clearly, a realistic assessment of the meaning of the Reagan mandate is an essential first step toward determining the potential for partisan realignment.

Economic Skepticism Remains

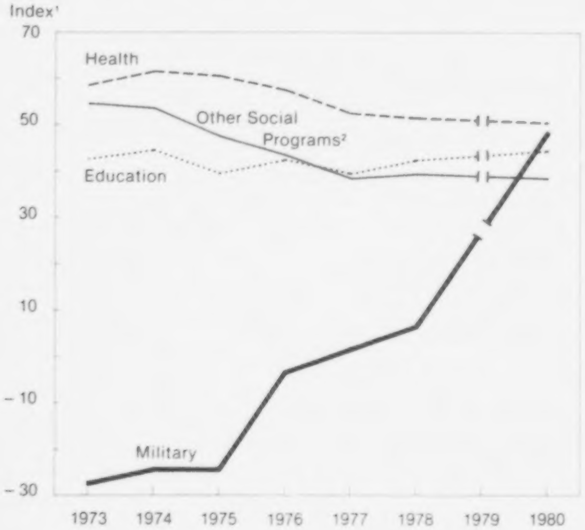
The Reagan administration has correctly focused its programmatic initiatives on economic problems rather than on the issues of the Moral Majority. It was these economic concerns that troubled most voters in 1980. They are mistaken, however, to interpret the election as a mandate for an across-the-board cutting of social programs. The American public views this neither as the solution to our economic woes nor as a preferred tradeoff for increased military spending. Over the years Americans have consistently expressed a preference for increased spending on such social programs as health and education (see Chart 1). It is only very recently and in response to events in Iran and Afghanistan that they have *also* indicated support for greater defense expenditures.

While a majority of *both* Reagan and Carter supporters favored increasing defense spending, the voters were much less enthusiastic about other features of Reagan's economic package. Reductions in government spending per se, for example, were not as important as some have argued in determining the election outcome. Substantially less than half of the Democrats who defected to give Reagan his winning margin preferred a reduction in government services. And the election was far from an endorsement of Reagan's tax cutting proposals. Fewer than half of the Republicans and Independents and only one-third of the Democrats who voted for Reagan favored a Kemp-Roth type of tax cut over the next three years. In fact, only 22 percent of the 1980 voters even knew Reagan's position on taxes prior to the election.

The public is not of one mind on specific spending or tax cuts. Continued fears of greater inflation have kept them divided on Reagan's proposals. Calls for reduced federal spending which voters did express were more a response to the widespread belief that government is wasteful and incompetent rather than an ideological rejection of all Great Society programs.

The Reagan administration understandably argues that there is no way, given present difficulties of economic growth and inflation, to attain an affordable compromise between "guns" and "butter" and that the election mandate

Chart 1. PREFERENCES ON GOVERNMENT SPENDING, 1973-1980



¹The proportion of respondents saying "too much" is being spent on a program was subtracted from the proportion responding "too little." Positive entries indicate that the population prefers to spend *more* on a program while negative entries indicate the desire to spend *less*.

²Includes programs dealing with the environment, big cities, and drug addiction.

Source: NORC General Social Surveys

dictates increased military spending. But the current pro-military spending mood of public opinion does not provide a very sound basis for public policy decision-making. The present support for increased military spending has developed only recently as a sudden response to current events and indicates more a temporary shift in public opinion than the relatively enduring preference evident for social programs. Public opinion on defense spending is comparatively volatile because the public is relatively uninformed about international relations and the defense capabilities of the United States. Lacking direct experience and reliable information upon which to base criticism of government defense and foreign policy, the public is more easily swayed by short-run events and the persuasive arguments of political leaders.

Reagan's emphasis on military spending also suggests a conviction within the administration that the most effective way to deal with sagging prestige abroad is through an increased military capability. But much of the concern voters expressed about the international stature of the U.S. was based upon dissatisfaction with what they saw as an inadequate foreign policy and an overly conciliatory relationship with the Soviet Union. Roughly three out of every four Americans, for example, expressed the belief that the Soviet Union had been unduly advantaged by detente. In sum, support for increased military spending represents the public's response to recent events and is not a shift from which an enduring partisan realignment could emerge.

Establishing a Mandate

Clearly, Reagan did not have a mandate for his particular conservative policies at election time and he has yet to succeed in establishing a popular consensus. The question remains whether the president can build a mandate in the future, given his approach and the positions he espouses.

Now that Reagan's economic policies have been enacted, his ability to establish a mandate will depend less on style or persuasive discourse and more on demonstrable outcomes. Should his policies succeed in promoting a healthier economy at home and renewed prestige abroad, there is evidence, discussed below, suggesting a possible long-term political realignment with the Republican party once again becoming the majority party in America. Should they fail, however, we can expect, at the least, a continued volatility in American politics and further deterioration of faith in the effectiveness of our political system.

Declining Democratic Attachment

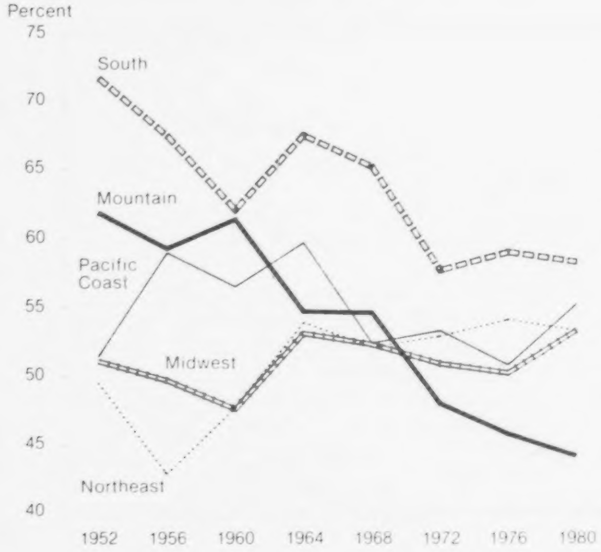
Survey evidence of population shifts suggests that if Reagan's conservative economic package reduced inflation, interest rates, and unemployment, Reagan would be in position to use this success to promote other conservative changes and to cement emerging Republican gains. We have noted the beginning of a trend toward greater conservative self-identification in the U.S. in general. The South and the Mountain states have been experiencing what may be called a sectional partisan realignment favoring the Republicans (see Chart 2). With the migration of more clerical workers and professionals into these regions has come both a larger Republican base and an increased population, giving Republicans greater political clout in national elections.

To date, however, much of this shift at the level of individual citizens has reflected a decreased positive image for the Democratic party rather than an increased attractiveness of the Republican party. The potential for long-term Republican domination of these regions is clearly evident but has not yet been realized. Moreover, the Republican gains in the Sun Belt have been offset by Democratic gains in the Midwest and Northeast, leaving the national balance between the two parties unchanged (41% Democrat, 34% Independent, and 22% Republican).

During the past decade certain other demographic groups have also shown a perceptible shift away from a Democratic attachment. Most evident among these are Catholics, an important part of the traditional Democratic coalition. In part this loss has been balanced by a Democratic gain among Northern white Protestants which occurred in response to the ultra-conservative image Barry Goldwater gave the Republican party in 1964. Since that time, however, party orientation among Protestants has remained quite stable while the Democratic attraction among Catholics has gradually waned.

One of the more important elements in a potential realignment is the lack of any partisan attachment. Relatively few individuals switch allegiance from one party to the other; Democrats rarely become Republicans and Republicans rarely become Democrats. Instead, it is among those lacking party attachment where the opportunity for realignment exists. More than one-third of the

Chart 2. EXPECTED DEMOCRATIC NORMAL VOTE BY REGION, 1952-1980



Source: SRC/CPS National Election Studies

adult population today thinks of themselves as Independents, and an even larger proportion of Independents is found among the younger age categories. This lack of party identification is not an active but a passive rejection of the parties per se and stems from the feeling that parties are no longer relevant to their lives or their political self-definition. Economic revitalization coupled with other Reagan successes in producing a more positive and appealing Republican image could therefore provide the impetus which might stimulate enduring partisan ties among young people and certain other demographic groups.

Obstacles to Realignment

Before such a realignment could occur, however, the Republicans would have to surmount several major obstacles. Young people, as a group, do not have homogeneous political views and are therefore not easily mobilized as a voting bloc. Although young Independents look like Republicans in their preferences for certain economic programs, such as a three-year tax cut, their policy preferences on social issues lie much closer to those of the Democrats.

Even if Reagan's policies were to successfully improve the economic picture for the younger generation, such improvement might not be dramatic enough to initiate a long-term partisan commitment, or it might not be associated with partisan accomplishments. If Reagan's successes are perceived as personal endeavors rather than as the result of party efforts, Republicans on the whole will not reap any lasting benefits. Unlike its experience during the Eisenhower era, however, the Republican party seems more likely to benefit from Reagan's personal popularity. They appear more united now; they are attempting to present a positive, holistic vision for the future; and Reagan is clearly a team player. Nevertheless, promoting party attachment and loyalty in this age of individual candidate-oriented politics remains a difficult task.

If the Reagan administration *fails* to fulfill the expectations they have raised of renewed prosperity, reduced inflation, lower unemployment, a more equitable tax burden, and greater prestige abroad—no mean task for any president—certain results are fairly predictable. Volatility in American politics will continue and Reagan will risk joining, involuntarily, the growing list of contemporary one-term presidents. Traditional party loyalties—Democratic as well as Republican—will suffer a further decline, accompanied by increased challenges from minority parties or independent candidates. Cries for more extreme remedies to our problems will likely grow louder, and citizen fervor for institutional changes in the candidate selection system and political decision-making process might intensify. At the same time citizen frustration with government failures and the feeling that voting doesn't make any difference will continue to grow and even further depress voter participation.

Trust in government, which sank to a new historic low just prior to the 1980 election, will also decay even further if Reagan fails, thereby more than offsetting the short-term gains which are evident with the election of a new president. More importantly, there may be a qualitative shift toward what appears to be a new ideology of discontent, one no longer directed at reforming government but aimed at dismantling government and its programs, regardless of future consequences.

Much of the volatility in American politics during the past decade springs from a deterioration in the images of, and attraction to, the political parties. As party attachment and its stabilizing influence on elections have decayed, the issues of the day and the appeals of each unique candidate have increased in importance. The 1980 election was no exception to this new rule.

A New Way to Realignment?

Since the election, more than one political observer has argued that the country is finally undergoing a long expected partisan realignment. The 1980 contest does not provide much evidence to suggest that it was a "critical" election. Although the protracted hostage situation was unfortunate for Carter, and economic conditions were far from encouraging, 1980 could hardly be labeled a high-intensity election. It settled no crisis or issues which would subsequently produce new and enduring social cleavages to the advantage of the Republican party. However, if a realignment were to occur as a consequence of Reagan's new conservative program, it would raise numerous implications for theories about the dynamics of partisan change. Such an eventuality would contradict much previous research that considers realignments to be decisions of the electorate which directly guide the functioning of government. It would also demonstrate rather definitively that realignments can occur on the basis of shifts in public policy which are forged by elites who grasp the opportunity to bring about change.

Author Index to Volume 8 (1981)

Ackley, Gardner
The New Year, and the New Administration's Economic Policy 1/12*
Bachman, Jerald G.
Youth Views about the Military: Recent Trends 3/61
Curtin, Richard T.
Divergent Trends Slow Improvement in Consumer Sentiment 1/17
Slow Economic Progress Dims Consumer Optimism 2/32
Confidence in Government Raises Consumer Optimism 3/58
Consumers Discouraged by High Interest Rates 4/78
Curtin, Richard T., Christopher J. Gordon, and Michael Ponza
Coping with Unemployment among American Households 2/39
Duncan, Greg J.
An Overview of Family Economic Mobility:
1. Patterns and Extent of Change 2/42
2. Correlates of Change 3/65
Hill, Daniel H.
The Impact of Natural Gas Deregulation on American Families 4/84
Howrey, E. Philip, Saul H. Hymans, Harold T. Shapiro, and Joan P. Crary
The U.S. Economic Outlook for 1981 1/3
The U.S. Economic Outlook for 1981-82: Recent Revision of the RSQE Forecast 2/29
Juster, F. Thomas
Saving, Economic Growth, and Economic Policy 3/54
The Economics and Politics of the Supply-Side View 4/81
McCracken, Paul W.
1981 Still Has a Chance 1/10
Miller, Arthur H.
Realignment in the 1980 Election 4/88
Saulnier, Raymond J.
Can Supply-Side Economics Cure Inflation? 2/27
Stafford, Frank P.
The Automobile Industry in North American and Japan 2/36
Tobin, James
Supply-Side Economics: What Is It? Will It Work? 3/51
Zarnowitz, Victor
The Economy in 1980 and 1981: Retrospect and Prospect 1/14
Where Are We Now and Where Are We Heading? 4/75

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*Issue number/beginning page number

/7

Actual and Projected Economic Indicators

seasonally adjusted

SERIES FORECAST BY THE ASA-NBER PANEL

ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	Actual							Projected					Actual		Proj.
	1980:1	1980:2	1980:3	1980:4	1981:1	1981:2	1981:3	**1981:3**	**1981:4**	**1982:1**	**1982:2**	**1982:3**	1980	1981*	**1982**
GROSS NATIONAL PRODUCT	2,572	2,565	2,637	2,731	2,853	2,886	2,947	**2,935**	**3,009**	**3,091**	**3,183**	**3,285**	2,626	2,924	**3,238**
GNP IMPLICIT PRICE DEFLATOR (index, 1972 = 100)	171.2	175.3	179.2	183.8	188.1	191.1	195.4	**194.8**	**198.9**	**202.4**	**206.0**	**210.0**	177.4	193.4	**208.4**
CORPORATE PROFITS AFTER TAXES	182.9	146.5	159.1	164.3	169.2	152.7	NA	**148.0**	**155.0**	**160.0**	**165.0**	**175.0**	163.2	156.2	**170.0**
UNEMPLOYMENT RATE (percent)	6.233	7.333	7.533	7.500	7.333	7.400	7.233	**7.20**	**7.50**	**7.60**	**7.40**	**7.20**	7.150	7.367	**7.30**
INDUSTRIAL PRODUCTION (index, 1967 = 100)	152.6	144.5	142.3	148.7	151.8	152.5	153.1	**153.0**	**154.0**	**156.0**	**158.0**	**161.0**	147.0	152.9	**160.0**
NEW PRIVATE HOUSING UNITS STARTED (millions)	1.234	1.055	1.390	1.535	1.391	1.176	0.966	**1.050**	**1.200**	**1.300**	**1.450**	**1.600**	1.303	1.183	**1.500**
CONSUMER PRICE INDEX (% change from prior quarter)	16.5	13.1	7.7	12.9	10.8	7.5	12.0	**9.20**	**8.00**	**8.00**	**7.60**	**7.80**	12.6	9.575	**7.95**
90-DAY TREASURY BILL RATE (%)	13.46	10.05	9.24	13.71	14.37	14.83	15.09	**15.10**	**14.50**	**13.80**	**13.30**	**12.70**	11.61	14.70	**13.00**
NEW HIGH-GRADE CORPORATE BOND YIELD (percent)	12.99	12.03	12.18	13.88	14.37	15.22	16.32	**15.50**	**15.09**	**14.45**	**14.15**	**14.10**	12.77	15.25	**14.30**
GNP IN 1972 DOLLARS	1,502	1,463	1,472	1,486	1,516	1,510	1,508	**1,507**	**1,516**	**1,529**	**1,543**	**1,560**	1,481	1,513	**1,554**
PERSONAL CONSUMPTION EXPENDITURES (1972 $)	943.4	919.3	930.8	946.8	960.2	955.1	965.2	**963.0**	**971.0**	**979.0**	**987.0**	**999.0**	935.1	962.9	**993.5**
NONRESIDENTIAL FIXED INVESTMENT (1972 $)	165.0	156.1	155.5	157.0	162.0	161.1	161.0	**159.5**	**160.0**	**162.0**	**164.0**	**166.0**	158.4	161.0	**165.5**
RESIDENTIAL FIXED INVESTMENT (1972 $)	54.2	43.1	44.7	50.6	51.0	47.8	43.2	**46.0**	**44.9**	**47.4**	**50.0**	**53.5**	48.15	46.7	**51.5**
CHANGE IN BUSINESS INVENTORIES (1972 $)	-0.9	1.3	-5.0	-7.2	-1.4	10.8	10.3	**3.5**	**4.0**	**6.0**	**6.0**	**6.7**	-2.95	5.925	**7.0**
NET EXPORTS (1972 $)	50.1	51.7	57.6	48.5	50.9	46.2	39.5	**44.2**	**43.0**	**42.0**	**41.0**	**41.0**	51.98	44.9	**41.0**
FEDERAL GOVERNMENT PURCHASES (1972 $)	107.6	110.7	106.9	107.4	111.2	108.7	110.2	**110.0**	**111.0**	**111.0**	**112.0**	**113.0**	108.2	110.3	**112.3**
STATE & LOCAL GOVERNMENT PURCHASES (1972 $)	182.5	181.2	181.3	182.4	182.5	180.7	178.9	**180.7**	**181.0**	**181.5**	**182.0**	**182.0**	181.9	180.8	**182.0**

SERIES FROM THE CURRENT-DOLLAR GNP ACCOUNTS

ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	1978:4	1979:1	1979:2	1979:3	1979:4	1980:1	1980:2	1980:3	1980:4	1981:1	1981:2	1981:3	1978	1979	1980
GROSS NATIONAL PRODUCT	2,272	2,341	2,375	2,444	2,496	2,572	2,565	2,637	2,730	2,853	2,886	2,947	2,156	2,414	2,626
PERSONAL CONSUMPTION EXPENDITURES	1,417	1,454	1,478	1,529	1,582	1,631	1,627	1,682	1,751	1,810	1,829	1,889	1,349	1,511	1,673
GROSS PRIVATE DOMESTIC INVESTMENT	392.6	408.3	423.2	421.7	410.0	415.6	390.9	377.1	397.7	437.1	458.6	449.8	375.4	415.8	395.3
NET EXPORTS	11.4	19.9	8.2	17.9	7.6	8.2	17.1	44.5	23.3	29.2	20.8	18.0	-0.6	13.4	23.3
GOVERNMENT PURCHASES	451.3	458.2	465.1	475.4	496.4	516.8	530.0	533.5	558.6	576.5	577.4	590.5	432.6	473.8	534.7
DISPOSABLE PERSONAL INCOME	1,531	1,580	1,613	1,664	1,710	1,765	1,784	1,841	1,897	1,948	1,986	2,040	1,463	1,642	1,822
PERSONAL SAVING RATE (% of disposable income)	4.8	5.3	5.6	5.4	4.7	4.9	6.2	6.1	5.1	4.6	5.4	4.9	5.225	5.250	5.575

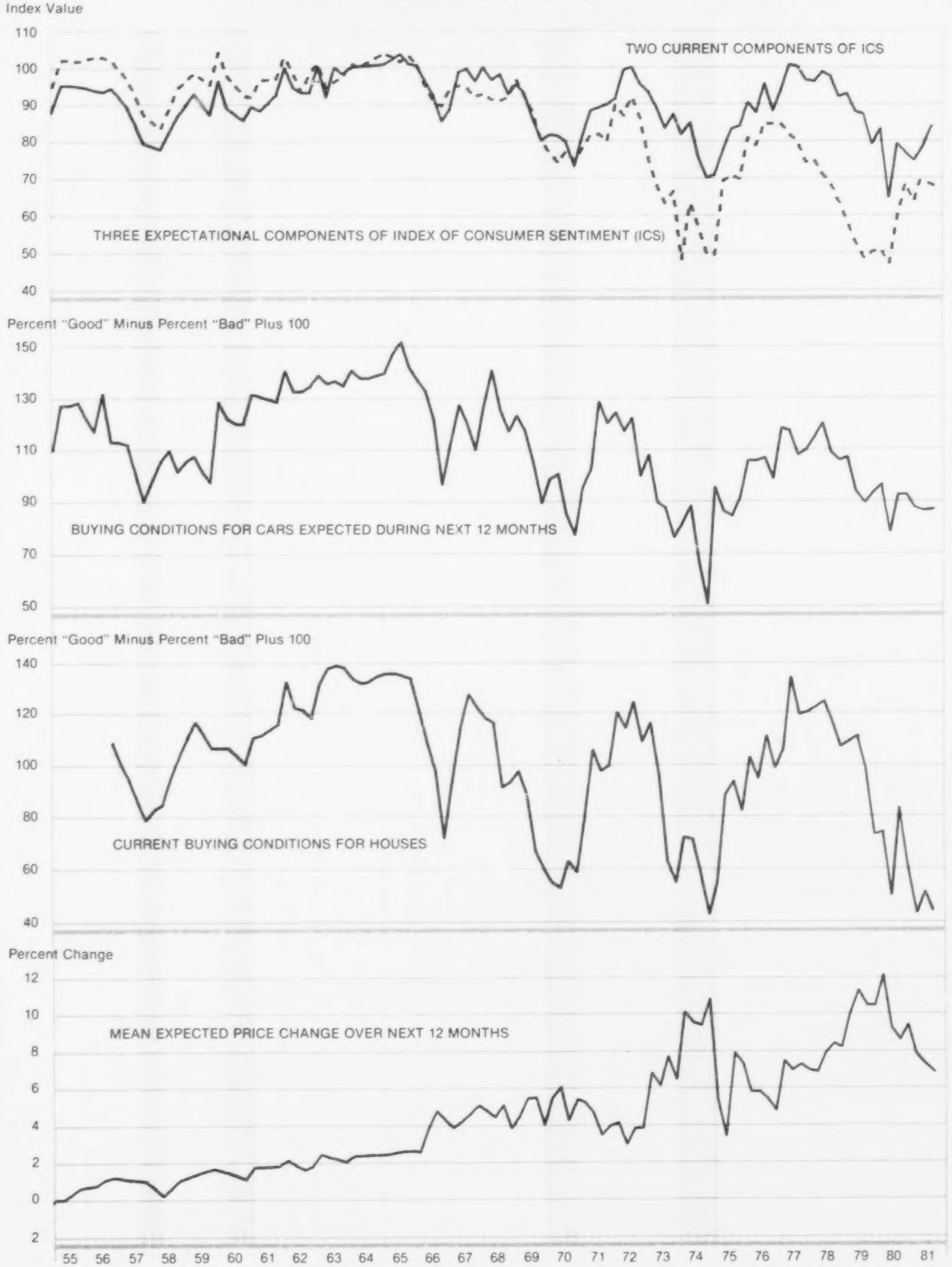
*Averages of actual data, first three quarters, and ASA-NBER projections, fourth quarter.

Note: (1) All data are at annual rates and in billions of current dollars unless otherwise indicated. (2) To facilitate comparison and evaluation of forecasts, both actual data, released in late October, and projected data, released by ASA-NBER in September, are displayed for third quarter 1981.

Sources: Projections: American Statistical Association – National Bureau of Economic Research panel of forecasters.
Actual Data: U.S. Departments of Commerce and Labor, Board of Governors of the Federal Reserve System.

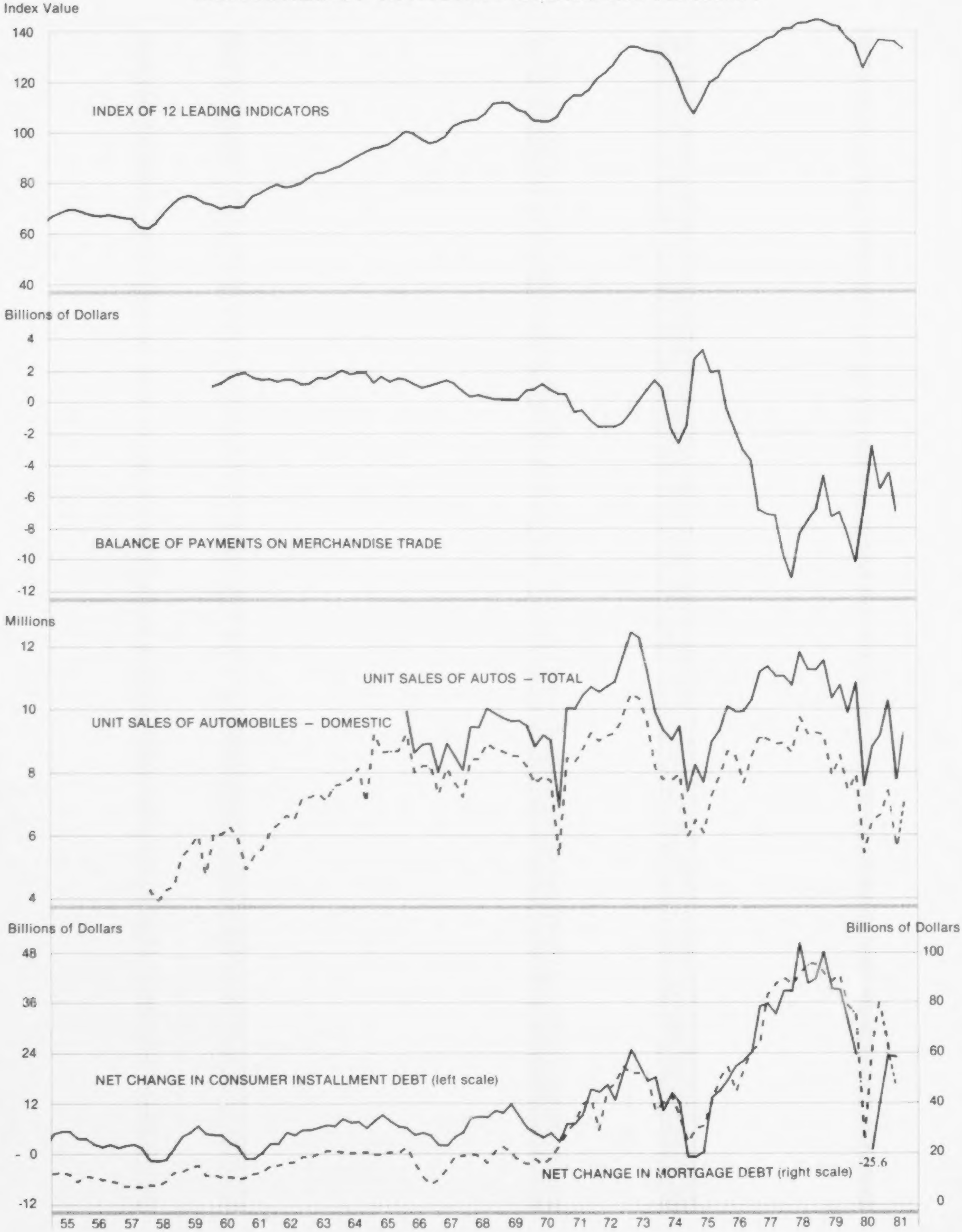
18

SRC MEASURES OF CONSUMER ATTITUDES



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

MEASURES OF NATIONAL ECONOMIC ACTIVITY



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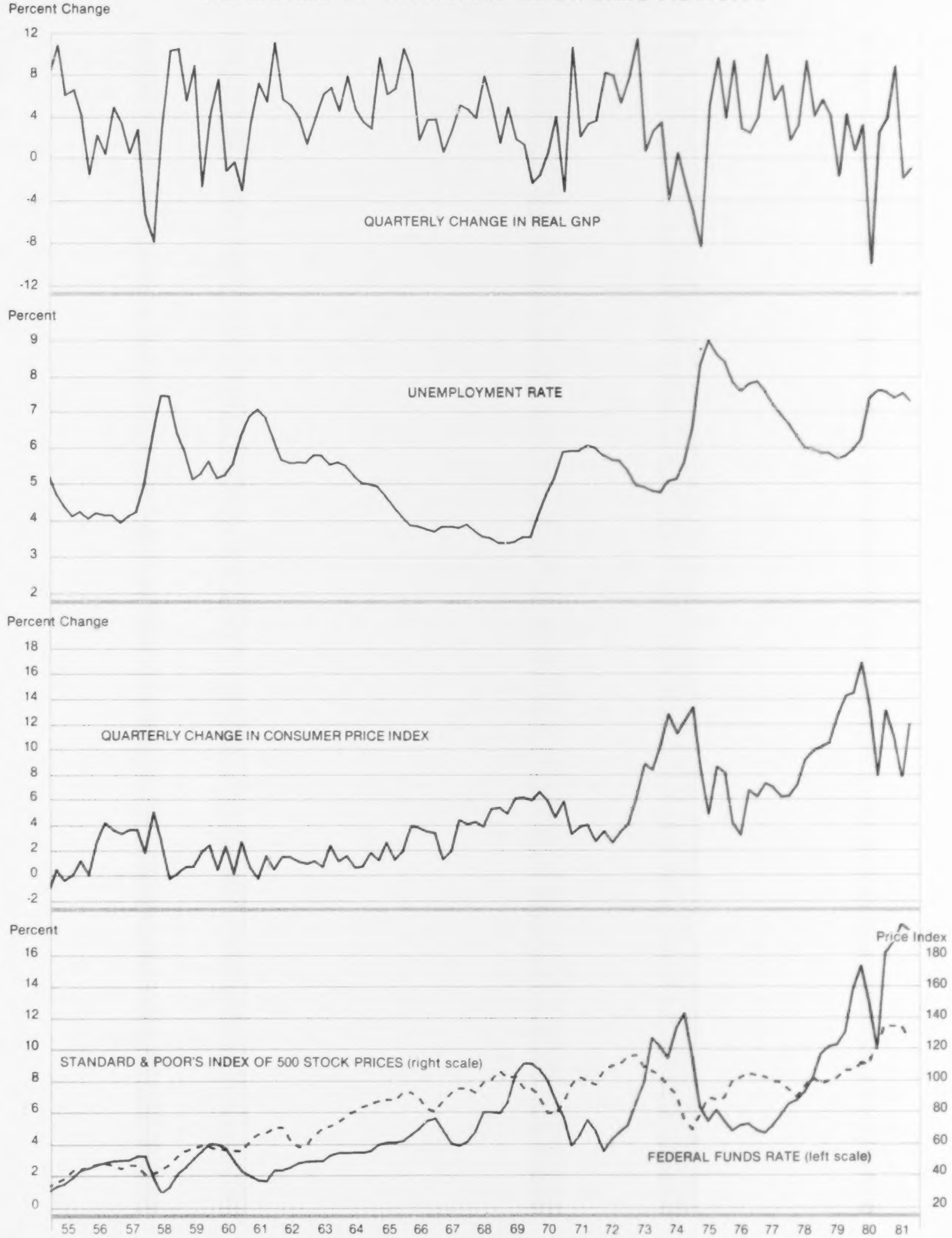
MEASURES OF NATIONAL ECONOMIC ACTIVITY



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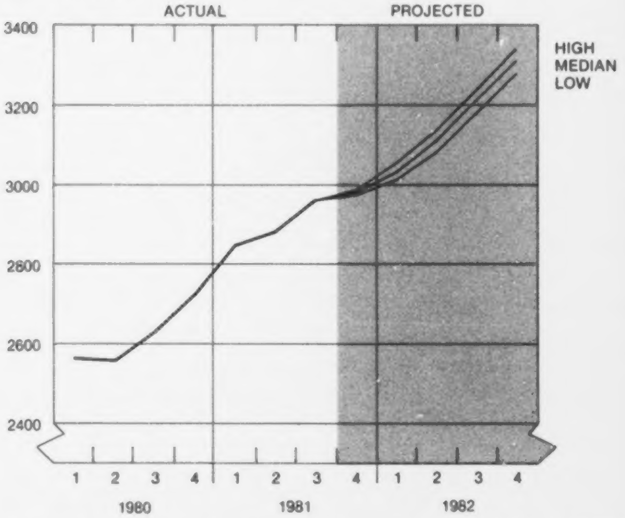
ECONOMIC PROSPECTS

Actual and projected; seasonally adjusted quarterly data at annual rates

GROSS NATIONAL PRODUCT

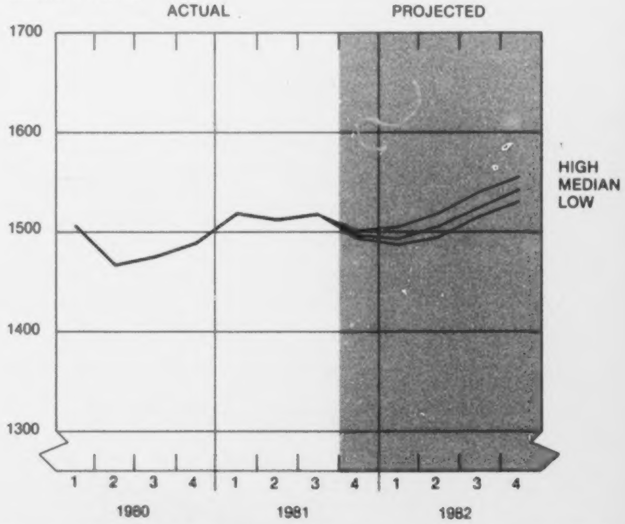
IN CURRENT DOLLARS
Billions of Dollars



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters, adjusted to reflect latest available data.

GROSS NATIONAL PRODUCT

IN CONSTANT 1972 DOLLARS
Billions of Dollars



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters, adjusted to reflect latest available data.

Frequently Used Abbreviations:

ASA	American Statistical Association
BEA	Bureau of Economic Analysis, U.S. Department of Commerce
NBER	National Bureau of Economic Research
SRC	Survey Research Center
19XY:Z	Zth quarter of 19XY

The U.S. Economic Outlook for 1982

Saul H. Hymans, Joan P. Crary,
E. Philip Howrey, and Harold T. Shapiro
Department of Economics
The University of Michigan

Review of the Forecast for 1981

At least once a year we require ourselves to take a careful look at our recent forecasting record, and each November we review the past year's forecast with the members of the Economic Outlook Conference. That process is never entirely free of pain, but it is always instructive to us both as economists and as model-builders. When evaluated at a high level of aggregation, the forecast which we presented at this conference a year ago was really quite accurate. We had forecast that for the year 1981 as a whole real GNP would be about $20 billion (1972 prices) higher than in 1980. We are now estimating that 1981 will register an increase of about $25½ billion in real GNP.

The data in Table 1 provide the means to evaluate the accuracy of last year's forecast on a more disaggregated and clearly more useful basis. Our only serious error in forecasting the major components of real GNP occurred in the case of business fixed investment. We had forecast that capital formation would be *down* by about 5½ percent in real terms for the year 1981, while it now appears that capital formation will be *up* by 1.3 percent compared to the 1980 level.

We had forecast that the rate of inflation, as measured by the consumption deflator, would be about half a percentage point lower in 1981 than in 1980; it now appears that the reduction will be closer to 2 percentage points. The principal sources of our overprediction of the rate of inflation were incorrect assumptions about food and oil price levels, both of which turned out substantially lower than we had assumed. Our underestimate of this year's increase in real disposable income is accounted for almost entirely by our error in forecasting the rate of inflation in consumer prices.

Interest rates were a good deal higher for the year as a whole than we had forecast, especially short-term interest rates. The resulting liquidity squeeze in financial institutions which normally cater to the consumer market accounts in large part for the weakness of car sales, which totalled 9 million units in the 1981 model year compared to the 9.7 million units we had forecast.

We should close this discussion by noting what may be the most serious weakness in last year's forecast. Our accuracy in predicting the growth and composition of real GNP for the year is the net result of a considerable underestimate of the economy's strength in the early part of the year being balanced by an overestimate of the rate of growth in the latter part of the year. Our underprediction of growth in 1980:4 and 1981:1 reflects higher levels of activity in homebuilding, business capital formation, and non-auto consumer durables than our model understood. As opposed to model error, which accounts for most of our underprediction of GNP growth at the turn of the year, erroneous input assumptions—i.e., human error—account for most of the subsequent overprediction of GNP growth. We had assumed that a personal tax cut of about 10 percent would become effective three-quarters of the way through the year. In addition, monetary policy was substantially more restrictive than we had assumed, demonstrated in part by Federal Reserve decisions to increase the discount rate on three occasions during the past year. Regardless of whether the discount rate policy was active or reactive, it kept upward pressure on the level of interest rates—especially short-term rates—which accounts for a good deal of the weakness in car sales and building activity that reappeared after the early months of the year.

The Current State of the Economy

A year ago we indicated that the combination of inflation, tight money, and a then-tighter fiscal policy implied that the economy in 1981 would be especially vulnerable to recessionary factors. We were incorrect in believing that monetary and fiscal policy actions would turn sufficiently expansionary that a 1981 recession would be avoided. The recession commenced in 1981:2 with declines in all major

Table 1. REVIEW OF RSQE FORECAST FOR 1981

	1980	1981	
Economic Indicator	**Actual**	**Actual**[1]	**Predicted**[2]
Rates of Growth (Percent)			
Real GNP (1972 dollars)	−0.2	1.7	1.4
Consumption	0.5	2.7	1.9
Durables	−7.4	3.6	3.1
Business Fixed Investment	−3.0	1.3	−5.6
Residential Construction	−18.6	−5.7	−5.1
Government Purchases	2.9	0.2	0.9
Inflation (1972 = 100)			
GNP Deflator	9.0	9.2	9.7
Consumption Deflator	10.2	8.4	9.7
Productivity, Private Nonfarm (1967 = 100)	−0.3	1.0	1.5
Real Disposable Income (1972 dollars)	0.7	2.2	0.7
Corporate Profits[3] (current dollars)	−7.2	1.9	12.2
Levels:			
Unemployment Rate (percent)	7.2	7.5	7.9
90-Day Treasury Bill Rate (%)	11.4	14.0	10.7
Corporate Aaa Rate (%)	11.9	14.2	12.4
Auto Sales (millions of units, model year)	9.2	9.0	9.7

[1] Sources for first three quarters of 1981 and calendar 1980: U.S. Dept. of Commerce, U.S. Dept. of Labor, and Federal Reserve Board, various publications of October and November 1981. Data for 1981:4 represent the current RSQE forecast.

[2] November 1980 Economic Outlook Conference.

[3] Includes inventory valuation and capital consumption adjustments.

Note: This is a slightly abridged version of the authors' presentation to the 29th annual Conference on the Economic Outlook at The University of Michigan.

categories of real final sales and a sharp increase in inventory investment. Car sales plunged from an annual rate of 10.1 million units in 1981:1 to 7.8 million units in 1981:2 while private housing starts dropped from an already depressed annual rate of 1.4 million units in 1981:1 to less than 1.2 million units in 1981:2. The drop in final sales moderated in the summer quarter as the auto market responded to factory price rebates and financing incentives, and sales rebounded to a 9.1 million unit rate for the closing months of the 1981 model year. At the same time, however, inventory accumulation remained high in 1981:3, pushing the nonfarm stock-sales ratio to a level nearly as high as in 1980:2.

We are forecasting that the closing quarter of 1981 will suffer the most serious decline of the current recession, with real GNP falling at an annual rate of 4.8 percent. The drop is expected to be accentuated by a sharp decrease in inventory investment, but real final sales are expected to decline at a 2.4 percent annual rate as auto sales and housing starts hit near-record lows of 7.6 million units and 860 thousand units, respectively.

The combination of stage one of the Reagan personal tax cut, the declining interest rates resulting from the current economic weakness, and the supportive reduction in the discount rate will, in all likelihood, imply an end to the recession before the spring of 1982. Indeed, we are forecasting essentially no change in real GNP for the first quarter of 1982.

The unemployment rate has already begun to rise in reaction to continued declines in production, and we are expecting unemployment to average 8.6 percent of the labor force in the first quarter of 1982 as the recession comes to an end.

The rate of inflation moderated substantially during the first half of 1981 as food prices remained flat, spot oil prices declined, and the rise of the dollar in international markets reduced the import price contribution to domestic inflation. We regard the 6½ percent inflation rate of the spring quarter, however, to have been an aberration due to especially favorable exogenous factors. In the third quarter of the year food prices started to move up and service prices—especially those related to natural gas—jumped sharply. The overall inflation rate turned back up relative to the especially low rate of 1981:2, but we are forecasting that inflation will begin to moderate again in the coming months.

Before considering the forecast beyond the early months of 1982, we turn to a discussion of the major input assumptions on which the forecast is based.

Inputs to the Forecast

There appears to be non-partisan agreement that the federal budget will exert a substantial expansionary impact on the economy for the next few years. The partisan—if not theological—debate centers on whether the expansionary impact derived from the supply-side effects will be so enormous as to offset the policy-induced swing toward larger deficits and in fact to shrink those deficits. For a brief period of time, the pushers of this fanciful notion won over some converts in high places. The fad does appear to be petering out, but it has already had a mischievous effect on economic policy. With the federal budget swinging toward expansion in a big way, the Federal Reserve System faces a serious dilemma. An easy monetary policy—even if it does stimulate long-term investment in productive capacity—can hardly help being inflationary by raising aggregate demand as well. The expansionary swing in fiscal policy thus all but requires the Fed to keep monetary policy tight or just give up the fight against inflation. Tight money might not be so bad if the swing in fiscal policy were heavily weighted toward investment incentives, but that is not the case. The Economic Recovery Tax Act does contain significant investment incentives in its accelerated depreciation provisions, and perhaps some personal saving incentives as well; but taken as a whole the tax cut package is primarily a stimulus to consumption.

The bottom line of this discussion is the following: the federal budget will be expansionary and will be accompanied by large federal deficits, while the Federal Reserve System will choose to stick to its anti-inflationary policy of permitting only modest growth in bank reserves.

Our Control Forecast assumes *no changes in existing tax laws*. That is, all provisions of the Economic Recovery Tax Act of 1981—including the accelerated depreciation provisions and the ten percent personal tax reductions scheduled for July 1982 and July 1983—and the already scheduled increases in social insurance tax rates and base are included among our assumptions. The Control Forecast assumes no new tax legislation or other revenue raising schemes.

The *federal expenditure assumptions* in our Control Forecast are shown in Table 2, which also compares our fiscal 1982 budget with the official projections based on the mid-session review of the budget (August 1981). Note first that our fiscal '82 expenditure projection of $741 billion is about $20 billion above the OMB budget. The major differences occur in transfer payments ($6 billion) and interest costs ($13 billion). Further, our forecast of receipts is nearly $40 billion below the OMB budget, with the result that our deficit forecast is about $60 billion above that in the OMB budget. Compared with a fiscal '82

Table 2. FEDERAL GOVERNMENT EXPENDITURES AND RECEIPTS
(National Income and Product Accounts, billions of dollars)

Expenditures, Receipts, and Deficit	Fiscal 1981[1]	Fiscal 1982		Fiscal 1983[3]
		OMB[2]	RSQE[3]	
Total Expenditures	667.6	719.3	741.1	813.1
Purchases of Goods and Services	220.2	247.4	247.0	278.0
National Defense	147.4	171.7	170.6	198.8
Nondefense	72.8	75.7	76.4	79.2
Transfer Payments	277.0	301.4	307.6	330.2
Grants-in-Aid to State and Local Governments	89.6	82.1	81.8	75.2
Net Interest Paid	67.4	77.0	89.7	111.6
Subsidies less Current Surplus of Gov't. Enterprises	13.4	11.4	15.0	18.1
Total Receipts	612.1[4]	678.3	638.7	697.8
Deficit	55.5[4]	41.0	102.4	115.4

[1] Data for Fiscal 1981 are from the *Survey of Current Business*, October 1981.

[2] Office of Management and Budget, "Mid-session Review of the 1982 Budget" as analyzed in the *Survey of Current Business*, August 1981.

[3] RSQE projections and Control Forecast for 1982.

[4] Receipts and deficit for 1981:3 are RSQE projections.

federal deficit of about $41 billion projected by OMB, we are forecasting a deficit of $102 billion for fiscal '82. Practically all of this difference is endogenous; the OMB budget projections for 1982 require an economic scenario containing higher income, profits, and employment and lower interest rates than result from the RSQE Control Forecast.

It may not appear so at first glance, but the expenditures assumed in our budgets for fiscal '82 and '83 represent significant expenditure reductions relative to a simple extrapolation of recent experience. Consider, for example, federal expenditures excluding interest payments, unemployment benefits, and defense purchases. Between fiscal '78 and fiscal '81 this subtotal of federal spending grew at an average rate of 12.2 percent per year. In our assumptions for fiscal '82 and '83, this same subtotal grows at an average rate of 5.8 percent per year—less than half the rate of the '78 to '81 period. Defense spending, on the other hand, is assumed to accelerate from an average increase of about 14½ percent per year during the past three years to a bit over 16 percent per year in the coming two years. And even considering total federal expenditures, the assumed increases shown in Table 2 amount to 10 percent per year for the next two years, which represents a significant decline from the 14 percent per year average of recent years.

The specifics of our *monetary policy assumptions* are the following:

- The rate of growth of the monetary base is assumed to be held to 5 percent per year during 1982 and 1983. This compares with a 5½ percent rate during the past year and 8 percent during the period from fall '79 to fall '80.
- On October 30th the Fed dropped the discount rate from 14 to 13 percent. With the economy in a recession and interest rates already drifting downward, the reduction to 13 percent was a "technical adjustment" to prevent an inadvertent tightening of monetary policy. We are assuming that another such adjustment will take the discount rate down to 12 percent on or about the first of December. The Control Forecast assumes no further changes in the discount rate.

We have made the following assumptions regarding *crude materials* and *farm prices* for purposes of the Control Forecast.

- In line with the formulas established under the Natural Gas policy Act of 1978, we are assuming that natural gas prices will rise at a 17 percent rate during 1982 and a 15 percent rate during 1983.
- We have assumed that the spot price of crude oil will continue to decline during the current quarter, but that the OPEC countries will fix on a policy of depleting the excess inventories of crude oil. As a result, we expect spot prices to begin to rise early in 1982. We assume that oil prices will rise at a 5 percent annual rate during the first half of 1982, which implies a continued decline in the real price of oil. By mid-'82, we assume that the price of oil will begin to rise at an 8 percent rate, enough to keep the real price of oil about constant.
- Other nonfarm crude materials prices are assumed to rise at an annual rate of 4 percent till mid-1982, after which the subsequent economic recovery is accompanied by a speed-up to a 7 percent rate of increase in these prices.
- Farm product prices are assumed to rise at an average annual rate of 6 percent during 1982-83.

Finally, we note several assumptions regarding *international trade* and the value of the U.S. dollar. It is apparent that the economies of our major trading partners run the gamut from relatively weak to depressed, and our high interest rates have clearly contributed to the substantial difficulties of a number of European countries. Concurrently, of course, the value of the U.S. dollar has risen substantially. Our trade-weighted exchange rate, for example, rose by 30 percent from August 1980 to August 1981, and the implicit price deflator for our merchandise imports has declined at a 12 percent annual rate during the past half-year. To the extent that this improvement in the dollar reflects the extremity of our recent interest rate levels, it should begin to weaken; and we expect to see the dollar more nearly stable among Western currencies as a whole in the near term. This implies a continued but more moderate decline in import prices for a short time, and a gradual firming by, say, the spring of 1982. After the spring we anticipate an import price path which returns by fall to an underlying inflation rate of about 8 percent. We expect the path of U.S. exports to be rather sluggish over most of the horizon of this forecast: another decline in real exports in the current quarter, no growth in 1982:1, then a half-year of real exports growing at a one percent annual rate, followed by a half-year at a 1½ percent rate, and then a 2 percent rate beginning in the spring of 1983.

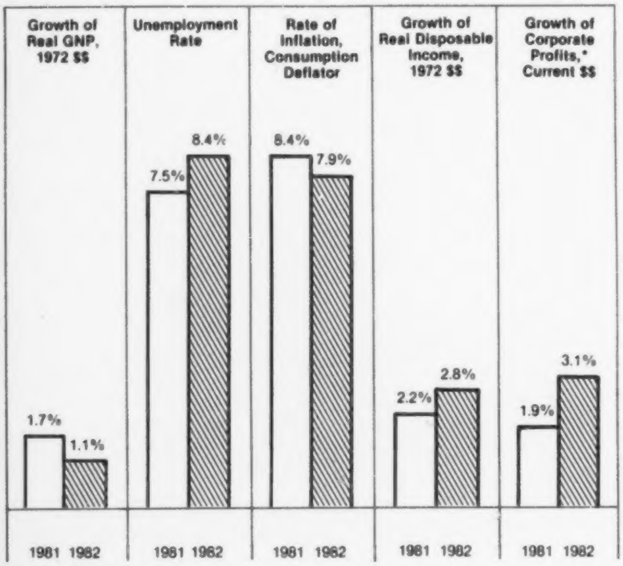
An Overview of the Control Forecast for 1982

The Control Forecast for 1982 is summarized in Charts 1 and 2. For the year 1982 total production—real GNP— is forecast to be only 1.1 percent above the level of production attained in 1981. With so small an increase in production for the year, unemployment can be expected to increase, and we forecast an unemployment rate averaging 8.4 percent for the year. The inflation rate—as measured by the implicit deflator for total consumption—is forecast to decline by about half a percentage point to just under eight percent on a year-over-year basis.

Corporate profits (with inventory valuation and capital consumption adjustments) and real disposable income are forecast to show moderately larger increases in 1982 than in 1981. We note in passing that book profits before tax will likely decline for 1982 as a whole, but that reflects, in part, a distortion due to the accounting changes expected to result from the adoption of the new accelerated depreciation provisions of the 1981 Tax Act.

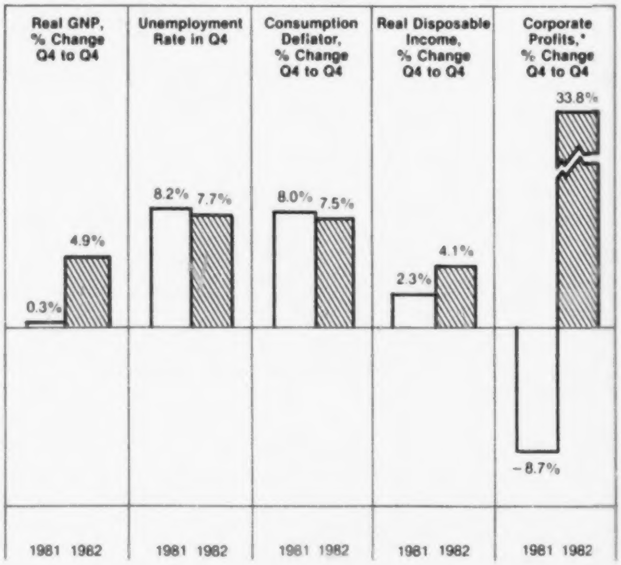
The calendar year outlook summarized in Chart 1 is heavily dominated by the timing of events during 1981 and 1982 and results in comparisons which give little of the flavor of the progress of events from now to late 1982. A more informative summary from the latter perspective is contained in Chart 2. The first panel compares our forecast of real growth over the year *beginning* in 1981:4 with the comparable figure for growth over the year *ending* in 1981:4. Real GNP in the current quarter is expected to be only 0.3 percent above the level of late 1980; i.e., the substantial GNP growth of 1981:1 will nearly all have been "given back" by the end of this year. In contrast, we are forecasting that real GNP in 1982:4 will be nearly 4.9 per-

Chart 1. OVERVIEW OF RSQE CONTROL FORECAST FOR 1982



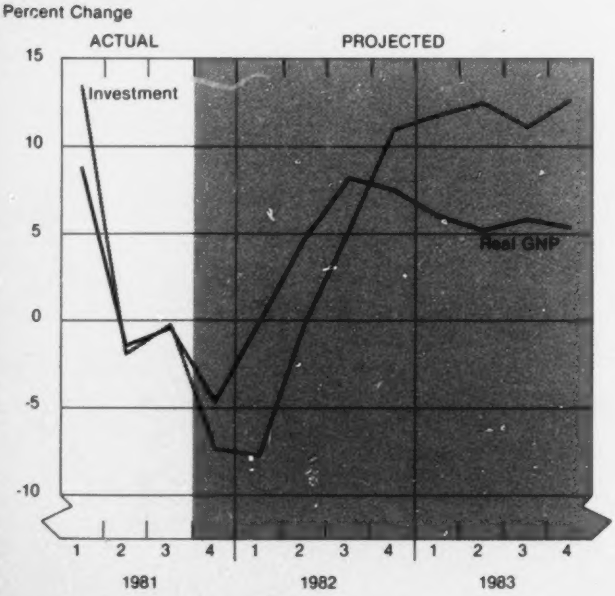
*Includes inventory valuation and capital consumption adjustments.

Chart 2. OVERVIEW OF RSQE CONTROL FORECAST, COMPARISONS OF 1981:4 WITH 1982:4



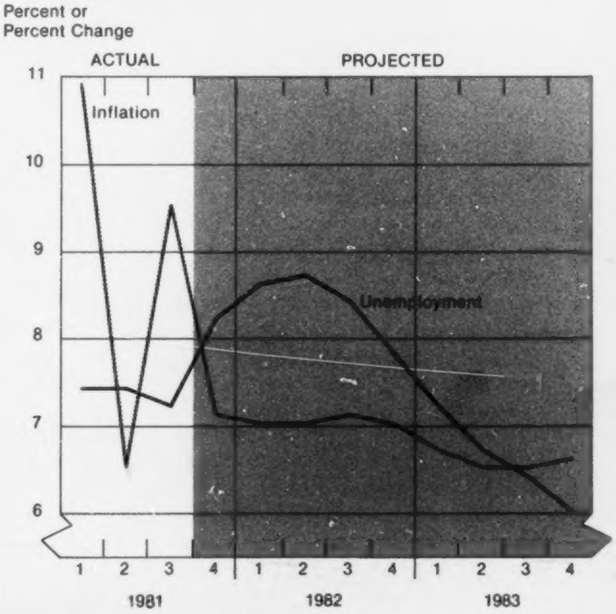
*Includes inventory valuation and capital consumption adjustments.

Chart 3. ANNUAL RATES OF GROWTH OF REAL GROSS NATIONAL PRODUCT AND BUSINESS FIXED INVESTMENT (1972 dollars)



Sources: Actual data, U.S. Department of Commerce; projected data, RSQE Control Forecast.

Chart 4. UNEMPLOYMENT RATE AND ANNUALIZED INFLATION RATE (Private Nonfarm Price Deflator)



Sources: Actual data, U.S. Department of Commerce; projected data, RSQE Control Forecast.

cent above its current level. Although we expect unemployment to average 8.4 percent for the year 1982 as a whole, we are forecasting that by the fourth quarter of 1982 unemployment will be below its average for the year, and below the average we are expecting for the current quarter. We are forecasting that by the end of next year the overall level of consumer prices will be 7.5 percent above where it is now, which is estimated as 8 percent above the level of a year ago. Once again we are measuring inflation using the consumption deflator. The comparable measure using the CPI would be 8.8 percent inflation over the coming year, compared with 10.9 percent since the fourth quarter of last year. Both profits and real disposable income are forecast to show much improved growth between now and the end of 1982. The sharp growth being forecast for profits reflects the recession level of profits in the current quarter and the economic recovery being forecast to occur during 1982. The recovery and, of course, the 10 percent personal tax cut scheduled for next July account for the sharp growth in consumer purchasing power being forecast to occur by the end of next year.

The Dynamics of the Control Forecast for 1982-83

Much of the dynamics and composition of output growth in the 1982-83 Control Forecast can be observed in Charts 3, 4, and 5. The forecast path of real GNP in Chart 3 indicates that the current quarter will exhibit the sharpest rate of decline of the 1981 recession and that the first quarter of 1982 will show essentially no change in real GNP. We are forecasting a significant recovery beginning in the spring of 1982 with substantial accelerations following the 10 percent personal tax cuts in mid-1982 and mid-1983. From the second quarter of 1982 through the fourth quarter of 1983, real GNP is forecast to grow at an average annual rate of six percent. The unemployment rate is forecast to hit a quarterly peak of 8.7 percent in the second quarter of 1982 and to decline to an average of six percent in the closing quarter of 1983 (Chart 4).

Following a sharp decline in the current quarter as auto sales slip to a projected annual rate of 7.6 million units, consumer purchases of durables begin to recover early next year and to grow at increasing rates for the balance of the year (see Chart 5). During 1983 consumer durables purchases are forecast to grow at an average annual rate of 9.4 percent. For calendar 1982 we forecast automobile sales—domestics plus imports— of 9.3 million units, and for 1983 car sales are forecast to rise to 11.6 million units.

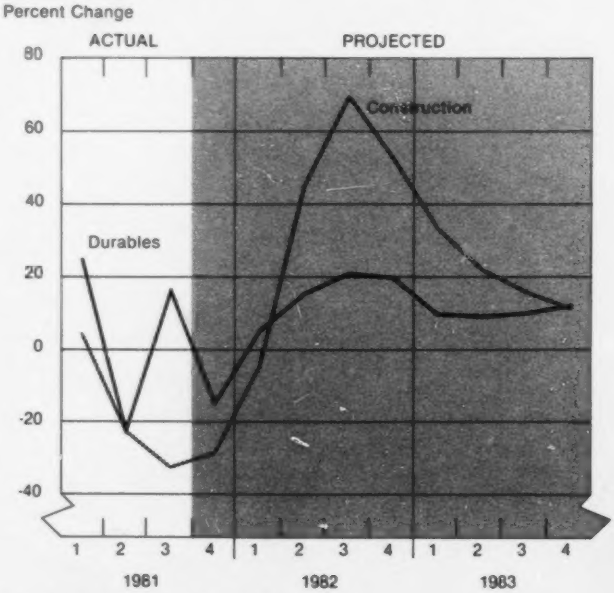
The recent declines in residential building activity are forecast to continue through the first quarter of 1982, though at diminishing rates. Construction activity turns sharply upward in the spring of 1982, with housing starts forecast to exceed 1.5 million units at annual rate by the end of 1982 and 1.8 million units by the end of 1983. Note, however, that the rate of growth of residential building activity turns down sharply after the fall of 1982 and continues to slacken during the rest of the forecast horizon (see Chart 5).

In contrast to the diminishing rate of growth of residential construction activity during the last year and a half of the forecast period, business fixed investment activity grows at increasing rates continuously from the middle of 1982 through the middle of 1983 (Chart 3).

Other aspects of the quarterly path in the Control Forecast which deserve special note are the following:

- Reflecting our assumption of no significant supply shocks—other than the scheduled increases in natural gas prices under the NGPA—the rate of inflation decelerates over the forecast horizon. The consumption deflator, for example, is forecast to register an inflation rate of about 7 percent in the second half of 1983, down from 8½ percent currently. The private nonfarm GNP deflator is forecast to exhibit an inflation rate of 6½ percent in the second half of 1983 compared with 8.3 percent in the second half of this year (Chart 4). It is important to note, however, that the minimum inflation rates in our Control Forecast really occur in about the third quarter of 1983. Thus, the inflation rate measured by the private nonfarm GNP deflator is 6.5 percent in 1983:3 and 6.6 percent in 1983:4. Obviously the difference is trivial, but the message isn't. If our Control Forecast is close to the mark, production and resource utilization—both physical capital and employment—will have risen sufficiently over the next year and a half that further reductions in the underlying industrial rate of inflation will become increasingly unlikely.
- Related to this is the development of productivity growth. We are forecasting that productivity will show substantial cyclical improvements from mid-1982 through 1983 as the economy recovers from the recession. Such productivity "bonuses," however, have little real impact on the behavior of prices, which respond much more to longer term trends in productivity. By our calculations, the trend rate of growth of productivity decelerated from about 2 percent per year in the early 1970s to about

Chart 5. ANNUAL RATES OF GROWTH OF CONSUMER DURABLES AND RESIDENTIAL CONSTRUCTION EXPENDITURES (1972 dollars)



Sources: Actual data, U.S. Department of Commerce; projected data, RSQE Control Forecast.

Table 3. SELECTED ECONOMIC INDICATORS AS FORECAST BY RSQE

Seasonally adjusted

ECONOMIC INDICATOR	Quarterly Data										Annual Data			
	ACT.	PROJECTED									PROJECTED			
													% Changes	
	81:3	81:4	82:1	82:2	82:3	82:4	83:1	83:2	83:3	83:4	1982	1983	81-82	82-83
GROSS NATIONAL PRODUCT	2,947	2,981	3,041	3,132	3,249	3,370	3,475	3,575	3,683	3,795	3,198	3,632	9.7	13.6
PERSONAL CONSUMPTION EXPENDITURES	1,889	1,921	1,969	2,026	2,097	2,164	2,226	2,287	2,360	2,430	2,064	2,326	10.8	12.7
DURABLE GOODS	240.1	231.1	236.7	248.7	264.5	281.0	291.3	301.5	312.4	325.8	257.7	307.7	10.1	19.4
AUTOMOBILES and PARTS	105.2	94.9	98.5	107.9	118.9	131.4	137.6	144.0	149.6	158.6	114.2	147.4	14.5	29.1
FURNITURE and H.H. EQUIPMENT	93.2	93.7	94.8	96.3	99.2	101.9	104.6	107.2	110.6	113.6	98.0	109.0	5.6	11.2
OTHER DURABLES	41.7	42.5	43.4	44.5	46.4	47.7	49.0	50.3	52.2	53.6	45.5	51.3	9.4	12.8
NONDURABLE GOODS	750.0	761.2	775.0	790.8	814.5	834.9	855.8	875.9	903.2	927.1	803.8	890.5	8.2	10.8
SERVICES	898.7	928.9	957.4	986.0	1,018	1,048	1,079	1,110	1,144	1,177	1,002	1,128	13.3	12.5
GROSS PRIVATE DOMESTIC INVESTMENT	449.8	424.2	416.1	433.9	468.4	506.0	540.9	571.8	599.4	627.6	456.1	584.9	3.1	28.2
NONRESIDENTIAL	330.8	328.9	326.7	330.8	339.8	354.0	369.5	386.2	402.4	420.8	337.8	394.7	3.9	16.8
RESIDENTIAL STRUCTURES	101.4	93.7	93.7	104.7	121.8	137.9	150.9	161.4	170.2	177.7	114.5	165.0	8.4	44.1
CHANGE in BUSINESS INVENTORIES	17.6	1.6	-4.3	-1.5	6.7	14.2	20.5	24.2	26.6	29.1	3.8	25.1	–	–
NET EXPORTS	17.8	26.5	35.0	39.4	37.2	32.6	26.4	19.7	12.4	4.6	36.0	15.8	–	–
EXPORTS	362.7	367.0	374.0	382.4	390.2	398.8	407.6	416.6	425.9	435.3	386.4	421.4	5.5	9.1
IMPORTS	344.9	340.5	339.1	343.0	353.1	366.2	381.2	396.9	413.5	430.7	350.3	405.6	2.2	15.8
GOVERNMENT PURCHASES	590.5	609.4	621.2	633.6	646.5	667.1	681.4	696.4	711.0	732.6	642.1	705.4	9.1	9.9
FEDERAL	227.6	239.5	244.3	249.4	254.9	268.0	274.5	281.5	288.0	301.4	254.2	286.4	11.9	12.7
NATIONAL DEFENSE	154.6	164.1	168.1	172.6	177.6	188.8	195.3	202.3	208.8	220.2	176.8	206.7	15.5	16.9
OTHER	73.0	75.4	76.2	76.8	77.3	79.2	79.2	79.2	79.2	81.2	77.4	79.7	4.5	3.0
STATE and LOCAL	362.9	369.9	376.9	384.2	391.6	399.1	406.9	414.9	423.0	431.2	388.0	419.0	7.3	8.0
GROSS NATIONAL PRODUCT DEFLATOR, 1972 = 100	195.4	200.1	204.2	208.0	211.7	215.7	219.3	222.9	226.5	230.5	209.9	224.8	8.4	7.1
REAL GROSS NATIONAL PRODUCT (billions of 1972 dollars)	1,508	1,490	1,489	1,506	1,535	1,562	1,584	1,604	1,626	1,646	1,524	1,615	1.1	6.0
AGGREGATE UNEMPLOYMENT RATE (percent)	7.2	8.2	8.6	8.7	8.4	7.7	7.2	6.7	6.4	6.0	8.4	6.6	–	–
CORPORATE PROFITS plus IVA and CCA	183.9	167.4	164.1	176.9	202.4	224.1	236.1	245.3	256.4	264.5	191.9	250.6	3.1	30.6
90-DAY TREASURY BILL RATE	15.05	11.75	10.27	10.87	11.65	11.73	11.73	11.56	11.85	11.70	11.13	11.71	–	–
REAL DISPOSABLE INCOME (billions of 1972 dollars)	1,043	1,049	1,049	1,052	1,084	1,09[illegible]	1,103	1,110	1,142	1,153	1,069	1,127	2.8	5.4
PERSONAL SAVING RATE (percent of disposable income)	4.9	5.9	5.4	4.7	6.0	5.5	5.3	5.1	6.5	6.2	5.4	5.8	–	–

Note: All data are in billions of current dollars unless otherwise indicated.

Sources: Projections by Research Seminar in Quantitative Economics, University of Michigan; actual data from Departments of Commerce and Labor, Board of Governors of the Federal Reserve System.

one-half of one percent per year in the late 1970s, and will speed up slightly to about 1.2 percent per year from late 1981 to late 1983. With hourly compensation rising at an annual rate of about 9 percent during 1983, this implies standard unit labor costs rising at a rate of 7½-8 percent per year. This could well exert pressure which would subsequently bring the inflation rate up above the 6½-7 percent range which we are forecasting for 1983.

- The short-term treasury bill rate bottoms out at about 10¼ percent in the first quarter of 1982, rises to nearly 11 percent in the second quarter, and then stabilizes in the range of 11½-11¾ percent for the rest of the forecast horizon. The corporate Aaa rate remains in the range of 15-15½ percent throughout the next two years. Although the resulting term structure of rates is not such as to imply any disintermediation problems, the level of rates remains high—especially in real terms. This contributes to the declining rate of growth of building activity starting next fall, and the apparent "topping off" of the rate of growth of business capital formation during 1983.

Additional quarterly detail on the Control Forecast is contained in Table 3.

Consideration of Policy Alternatives

The nature of the story being told by our Control Forecast is the following. The current recession will end early in 1982 after some inventory correction occurs and the recession itself produces an easing of credit conditions which the Fed accommodates via reductions in the discount rate. Natural recovery forces—including strong underlying demand for housing construction and autos—will lead the recovery in the spring, and the mid-year personal tax cut will accelerate the recovery still further. After mid-year, business investment activity will be rising substantially in reaction both to the accelerated depreciation incentives and the general economic recovery. If the Federal Reserve System permits the monetary base to grow at a 5 percent rate and keeps the discount rate at 12 percent as we have assumed, the result will be tight enough credit conditions to keep the economy from generating an excess demand inflation. On the contrary economic growth would proceed in an orderly fashion and inflation would decelerate well into 1983.

The problem with this scenario is that it produces short-run economic improvements without really laying the foundation for permanent, sustainable, non-inflationary growth. Basically this is due to the size and structure of the Reagan tax cuts. The size of the tax cuts—along with a feasible slowdown in federal spending—is sufficiently expansionary to induce the Fed to opt for a fairly tight monetary policy, and the composition of the tax cuts is weighted toward substantial increases in consumption. Thus, fiscal policy supports a consumption-led expansion, and the monetary authorities lean against the growth of investment activity. All this is relative, of course. The point is that long-run goals would be better served by our being able to approach high employment levels along a path with relatively more investment and consequently greater growth of modern and efficient productive capacity than is implicit in our Control Forecast.

Such a path of development could be attained by a policy shift which eliminates some of the 20 percent personal tax cut yet scheduled to go into effect. Eliminating some of the tax cut would shift the Federal budget toward restriction and permit the Federal Reserve to opt for an easier monetary policy without risking any greater inflation. Indeed, to the extent that easier credit conditions stimulate investment relatively more than consumption, the tighter-fiscal/easier-monetary-policy mix would improve the long-run inflation outlook.

To illustrate some of the short-term effects of such an altered policy mix we have generated a forecast which eliminates the 10 percent personal tax cuts scheduled for mid-1982 and mid-1983 and allows the discount rate to be reduced to 11 percent in mid-1982. This is not intended to be a policy mix which produces precisely the same real GNP path as that in the Control Forecast, and it does not. In fact, on balance the economy grows a bit more slowly in the alternate run. But the tighter-fiscal/easier-monetary-policy mix happens to produce virtually the same capital investment by the end of 1983 as in the Control Forecast, even through real GNP is lower (see Table 4). It is quite clear that an alternative similar to this could be put in place such that total production and employment are virtually unaffected, the mix of output is shifted toward capital goods, and both interest rates and the Federal deficit are reduced relative to the scenario implied by current policy.

We note in passing that the kind of policy alternative just discussed is a very natural way to bring about a substantial reduction in the Federal deficit. For obvious reasons, it is also about the least likely action to be taken, at least during 1982. Rather, we can expect discussions of a succession of schemes to raise revenues by nickels and dimes here and there, and perhaps even some major proposals deserving careful consideration both because of their revenue-raising capacity and their equity impacts. Of course an alternative to raising revenues is further reductions in expenditures. Major spending cuts of $30-$50 billion over the next several years would certainly reduce the deficit and imply a substantially weaker economy if the monetary authorities failed to compensate with a significant easing of credit conditions. Despite Washington's continued interest in spending reductions, we have very strong doubts about the political and social feasibility of spending reductions in the $30-$50 billion range.

Notwithstanding what may well have been the best of intentions on the part of the administration and the Congress, fiscal policy is currently in a mess. And that is a matter of no mean importance.

November 1981

Postscript, December 1981

The broad pattern of our current forecast is very similar to that of our November outlook. We now anticipate that real GNP will decline a bit more sharply in the current quarter and the first quarter of 1982, producing a total decline from 1981:3 to 1982:1 of 1.8 percent versus the 1.3 percent forecast in November (an additional drop of 7.5 billion 1972 dollars). Growth of real output is projected to average 6.3 percent (at annual rate) during the period of recovery covered by our forecast (1982:2-1983:4), with spurts of accelerated growth following the mid-1982 and mid-1983 tax cuts. The unemployment rate is forecast to continue to rise until 1982:2—peaking at a quarterly average of 9.3 percent—and then to decline steadily to an average of 6.3 percent in the final quarter of 1983.

The rate of inflation, as measured by the nonfarm business deflator, is projected to moderate in 1982, with continued improvement through most of 1983. We are forecasting that the rate of inflation will average 6.6 percent in the second half of 1982 and 6.1 percent in the second half of 1983—down from 8.9 percent in the second half of 1981.

We are forecasting that interest rates will decline as the lower rate of economic activity eases credit demands and will then begin to rise again as the recovery proceeds.

As a result of the recovery and the scheduled personal tax cuts, growth of real disposable income will average 6½ percent at annual rate from mid-1982 to the end of 1983.

Table 4. COMPARISON OF CONTROL FORECAST AND TIGHTER-FISCAL/EASIER-MONETARY-POLICY ALTERNATIVE AS OF 1983:4

Economic Indicator	Control Forecast	Alternate Forecast*	Alternate Minus Control: Level	Alternate Minus Control: % of Control
Real GNP (billions '72 $$)	1646.2	1636.2	−10.0	−0.6
Consumption	1056.6	1043.2	−13.4	−1.3
Durable Goods	170.4	166.4	−4.0	−2.3
Business Fixed Investment	179.5	179.6	+0.1	+0.0
Residential Construction	64.7	67.8	+3.1	+4.8
Unemployment Rate (%)	6.0	6.2	+0.2	−−
Private Nonfarm GNP Deflator (1972 = 100)	226.6	226.5	−0.1	−0.0
90-Day T-Bill Rate (%)	11.7	10.8	−0.9	−−
Corporate Aaa Rate (%)	15.0	14.5	−0.5	−−
Federal Deficit (billions of $$)	132.4	57.4	−75.0	−−

*The Alternate Forecast differs from the Control Forecast by 1) eliminating the 10 percent personal tax cuts scheduled for July 1, 1982 and July 1, 1983, and 2) lowering the discount rate from 12 percent to 11 percent on July 1, 1982.

The Adversities of 1981 and Uncertainties of 1982: A Survey of Forecasts

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Late in 1980, real GNP, industrial production, employment, and other important macroeconomic indicators were definitely on the rise so that the occurrence of an upturn from the sharp but short recession of the first half of the year had already been recognized. Under such conditions, at least the direction of the economy's course is usually easy to predict, since a recovery, once established, tends to cumulate into an expansion which, history suggests, would be likely to last a few years rather than a few quarters. Hence, it is not surprising that a majority of forecasters a year ago anticipated a continuing, albeit slow, recovery in 1981 and failed to predict its premature end. This is the main reason why the median forecasts from the ASA-NBER survey published in December 1980 did not fare well (see table below).

A Postmortem on the 1981 Predictions

By the end of 1980, a new surge of borrowing and money creation that followed the harsh restraints on and drop in credit during the spring quarter generated widespread fears of more inflation and another "clampdown" by the Fed. Interest rates once more rose sharply in both nominal and real terms. Consequently, despite the multiplying signs that a reasonably good recovery was underway, most business analysts and economists saw only weak and uncertain improvements in the near future. Our table shows that, with the important exception of housing, the economy in 1981:1 was expanding at a much faster rate than forecasters had expected. However, in 1981:2 a sharp slowdown occurred which soon turned into another recession. The NBER recently determined the latest reference peak date as July 1981. The recovery lasted merely a year, raising the indicators of aggregate economic activity only slightly above their previous peak levels of early 1980. So the forecasts made a year ago turned out to have on the average substantially overestimated output, spending, and profits, and underestimated unemployment, in the three quarters 1981:2-1981:4.

Inflation, in terms of the GNP implicit price index, was underestimated in all but one of the periods covered, but by small margins. The predictions for current-dollar GNP show the smallest errors; those for corporate profits, housing starts, and inventory investment show the largest errors.

In retrospect, it is clear that the year 1981 presented economic forecasters with exceptional surprises and difficulties. They did in general worry about the right things, but not sufficiently. Thus real interest rates stayed higher for a longer time than had been expected, and even now the reasons for this are not fully understood. The precise nature of the abrupt shift in fiscal policy was hardly predictable inasmuch as it depended on the vagaries of the political process. The package of large tax cuts and smaller expenditure cuts ignited fears of huge deficits and heavy Treasury borrowings, which would work to undermine fiscal policy and keep interest rates high relative to the current (but perhaps not the expected) rates of inflation. Simultaneously, monetary policy was tightened more and longer than many had expected, when judged by the average growth rates of M1-B (but not M2), while the short-term volatility of these indicators remained very high. This probably made the Fed's policies against inflation more credible in the short-run, though as yet not necessarily in the long run.

Another source of the difficulty, as mentioned earlier, was simply the shortness of the 1980-81 expansion, which

**THE ECONOMY IN 1981:
PREDICTED VS. ACTUAL CHANGES**

	Quarterly Changes				Annual Changes	
	1980:4-1981:1 (1)	1981:1-1981:2 (2)	1981:2-1981:3 (3)	1981:3-1981:4 (4)	1980-1981 (5)	1980:4-1981:4 (6)
GNP in Current Dollars[1]						
Predicted	2.6	3.0	3.1	3.1	11.0	12.5
Actual	4.5	1.1	2.7	0.7	11.3	9.3
GNP in Constant Dollars[1]						
Predicted	0.2	0.8	0.8	0.9	1.2	2.7
Actual	2.1	-0.4	0.4	-1.3	1.9	0.7
Implicit Price Deflator[1]						
Predicted	2.5	2.1	2.2	2.3	9.5	9.5
Actual	2.3	1.6	2.4	2.0	9.1	8.6
Index of Industrial Production[1]						
Predicted	1.4	1.4	1.5	1.9	1.9	6.3
Actual	2.1	0.5	0.4	-2.0	3.3	0.9
Unemployment Rate[2]						
Predicted	0.1	-0.1	-0.1	-0.1	0.4	-0.2
Actual	-0.2	0.1	-0.2	0.9	0.4	0.6
Corporate Profits After Taxes[1]						
Predicted	1.1	3.9	4.8	4.2	7.3	14.6
Actual	3.0	-9.8	2.4	-8.1	-5.6	-14.2
Business Expenditures on New Plant and Equipment[1]						
Predicted	1.0	2.1	3.0	4.4	5.7	10.9
Actual	4.2	1.4	3.6	1.2	9.1	10.8
New Private Housing Units Started[1]						
Predicted	0.0	7.4	4.8	5.3	16.5	18.5
Actual	-9.4	-15.4	-17.7	-10.0	-15.4	-40.0
Change in Business Inventories[3]						
Predicted	7.3	3.4	2.6	3.0	8.8	-16.3
Actual	21.9	18.8	4.2	-9.9	24.1	-35.0

[1] Percent changes.

[2] Differences, percent of labor force.

[3] Differences, billions of dollars.

Sources: *Predicted* changes are based on median forecasts from the December 1980 ASA-NBER survey. *Actual* changes are based on figures reported in the December 1981 issue of *Business Conditions Digest* for the four quarters 1980:4 - 1981:3, the more recent (January 1982) releases for the national income and product accounts, and—in those cases where the actual data for 1981:4 are not yet available—on median forecasts from the December 1981 ASA-NBER survey.

has few precedents in the history of U. S. business cycles and none in the last 60 years. Housing, the automobile industry, and producers' durable equipment never really recovered from the setbacks of the 1980 recession. High interest rates also contributed to the appreciation of the dollar, which along with the weakness of the economies of our main trading partners caused U. S. real net exports to fall sharply after mid-1980.

Finally, the national income and product accounts underwent a major benchmark revision in December 1980, and some of the errors in the forecasts here reviewed contain a component due to that revision. (To make a fair allowance for such errors is difficult, and no attempt to do so was made in our table.)

It is necessary to qualify these observations by noting that some forecasters dissented from the group averages in important respects. While most expected a slowdown only, an "increasing number of economists now foresee another downturn in 1981 . . ." (as stated in my article in OUTLOOK, Winter 1981, which raised the question "The Year Ahead: Sluggish Recovery or Renewed Recession?"). Most of these pessimists thought that the setback would come early in the year, but a few got the timing essentially right, too. "Some forecasts place the downturn in the middle quarter of 1981, attributing it mainly to the effects of the expected curtailment by the Fed of monetary growth" (*ibid.*, p. 16).

The Outlook for 1982

The latest survey of forecasts reveals a substantial consensus that the steepest decline in economic activity would occur in 1981:4 and that the recession is likely to bottom out in 1982:1. A recovery is then to begin hesitantly in the spring and gather momentum in the second half of 1982, aided by the second phase of the tax rate cuts enacted last year.

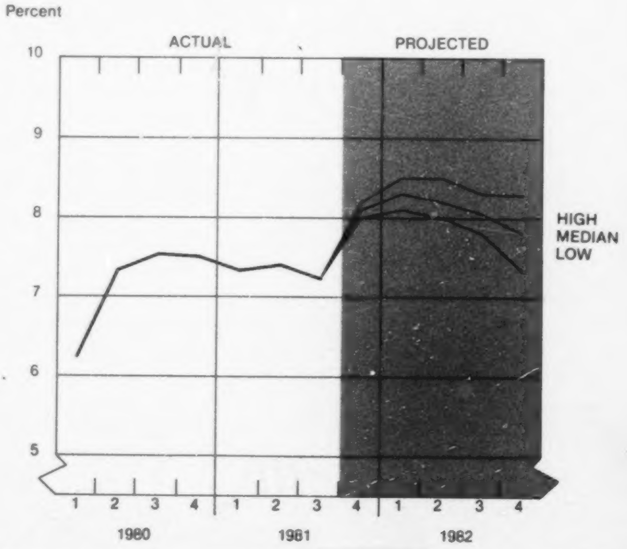
As usual, its own development will help cure the recession by such means as a reduction in the price and wage rises, declines in interest rates, and downward adjustments in the growth and costs of inventories. But these improvements are in general not perceived as large and enduring. Some worry that the recession may be more severe and longer than the consensus forecast implies. Few expect the recovery to be as strong as has been the case in the early stages of most of the recent business cycle expansions.

At present, the forecasts of the unemployment rate are being revised upward, to exceed 9% in the near future and hover above 8% most of the year. Inflation rates are to decrease significantly, dipping below 7% during the recession and early recovery; they may rise somewhat later on, when the pace of the expansion quickens, but seem unlikely to re-enter the two-digit range. Higher unemployment and lower inflation are apt to have moderating effects on wage demands, inflationary expectations, and interest rates. Yet the recent forecasts reflect widespread doubts that the short-term rates will actually continue to decline. Indeed, according to the median NBER-ASA survey predictions, the 3-month Treasury bill rate will drift slowly upward in the year ahead from 10.8% in 1982:1 (which is less than the recent mid-January readings) to 12.6% in 1982:4. The decline in long-term rates would lag behind and last longer than that in short-term rates but not by much (the yields on new high-grade corporate bonds are to level off at 14% or slightly higher in 1982:2-1982:4).

Expectations of lower inflation but stubbornly high costs of credit imply that real interest rates will drift upward in the year ahead, in a reversal of their recent decline. This would affect adversely consumer capital outlays, thus adding in particular to the woes of housing and the automobile industry; it would also discourage business investment in plant and equipment. The now prevailing forecast has housing at the end of 1982 about where it was two years earlier: up from the low trough of 1981:4 but still very weak. The increases during the year 1981:4-1982:4 in total real GNP and its main expenditure components—consumption, nonresidential fixed investment, federal government purchases—are all projected at modest rates of 2.7%-3.2%. State and local government purchases and net exports are viewed as sources of weakness throughout 1982. The year-to-year comparisons 1981-82 show only real consumption and federal government expenditures gaining, which barely offset the declines in the other components of real GNP.

Given the substantially reduced rates of inflation and the promise of sizable tax cuts, why is there so much uncertainty about the recovery prospects? It seems that the main reason is of recent origin: the greatly increased volatility of both interest rates and short-term flows of money and credit. The financial markets are highly sensitive to the threat of a sequence of large budget deficits exerting strong upward pressures on interest rates. There is a widespread skepticism that the deficits can be significantly reduced and that their monetization can be avoided instead of merely postponed. Hence the fears of renewed inflationary developments over the longer run are not yet assuaged and perhaps will not be decisively reduced until the actual inflation rates stay reasonably low for some time. The instability in financial markets inclines lenders to require high risk premiums, which, as the underlying uncertainty itself, seem to move more readily up than down. The same situation, too, continues to favor short-term and flexible debt instruments to the disadvantage of bonds.

UNEMPLOYMENT RATE



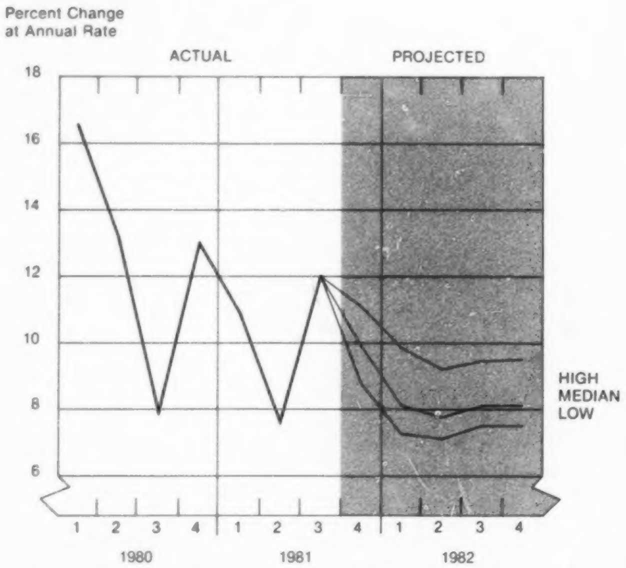
Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters, adjusted to reflect latest available data.

It is recognized that the restrictive stance that the Federal Reserve assumed until late last year has contributed to the recent reduction in inflation – as well as the recession. But how consistent and effective will the monetary policies be in the not-too-distant future? Despite strong declarations of policy intent, which stress the continuing need to fight inflation, here too there is room for much uncertainty, considering the problems and pressures the Fed faces, the checkered record of its historical performance, the recent instability of monetary growth rates, financial innovations, and the divergent behavior over time of different aggregates of money and credit.

Among the novel elements in the situation are the increased incentives to save which, it is hoped, will in the longer run counteract the detrimental effects of high deficits on interest rates and investment. But at the present no one can estimate with any confidence how well these new tax incentives will work. Eventually, the large personal and business tax cuts should indeed have strong cumulative effects of increasing the purchasing power of the private sector and stimulating both spending and saving, consumption and investment. But if the result is to be a stretch of maintained real growth, not a revival of high inflationary pressures, excessive growth of money and credit would have to be somehow prevented. It is widely believed that this can be achieved only if government deficits and borrowing are sufficiently curbed, so that the Federal Reserve has a chance of meeting reasonably low monetary targets without another explosion of interest rates. The political and economic problems involved at this point appear truly formidable.

January 1982

CONSUMER PRICE INDEX



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters, adjusted to reflect latest available data.

Unemployment Adds to Interest Rate Distress

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Consumer Optimism Fades

In the October-December 1981 surveys, the Index of Consumer Sentiment was 65.7, a 9.1 Index point decline from the third quarter figure, and 6.4 Index points below the year-earlier reading. The fourth quarter decline reverses nearly all the improvement in consumer sentiment recorded since mid-1980. Recently heightened concerns about unemployment, coupled with continued high interest rates, have led to less favorable evaluations of business conditions as well as less favorable buying attitudes.

Heightened Concern With Unemployment

An increased awareness of unfavorable business developments was recorded in the fourth quarter 1981 surveys, with spreading unemployment the dominant concern. Seventy-one percent of all families thought business conditions had worsened during the past year, a sharp rise from the 51 percent recorded in the prior quarter. More than one-in-four families in the fourth quarter surveys spontaneously mentioned that they had heard news of increasing unemployment, a significant increase from the less than one-in-five families saying so at mid-year. Overall, 54 percent of all families in the fourth quarter 1981 surveys expected unemployment to increase during the year ahead, up from 31 percent recorded a year earlier. In total, almost nine-in-ten respondents in the fourth quarter 1981 surveys expected unemployment either to increase or to remain at the currently high levels in the year ahead. Just 11 percent expected unemployment to lessen during 1982.

Heightened concern with unemployment coupled with lower inflation rates have led consumers more frequently to view unemployment rather than inflation as the more serious economic problem now facing the nation. In the fourth quarter 1981 surveys, consumers expected an annual inflation rate of 6.8%, down from 9.3% expected a year earlier. During the past year, the proportion of consumers that expected double digit inflation has fallen from

39 to 27 percent. As a result, for the first time since the 1974-75 recession, a greater proportion of respondents singled out unemployment rather than inflation as the more serious economic problem by the margin of 45 to 41 percent. This represents a significant shift in opinion from one year earlier, when inflation rather than unemployment was viewed as the more serious economic hardship facing the nation by the margin of 54 to 34 percent.

Confidence in Government Economic Policies Weakens

By the close of 1981, nearly the entire improvement in the outlook for business conditions recorded in late 1980 and early 1981 had been reversed. In the fourth quarter 1981 surveys, almost two-thirds of all consumers expected bad times financially in the country as a whole during the next 12 months. The recent decline in optimistic business expectations was especially sharp among families with incomes of $20,000 or more, with those expecting good financial times falling from 40 to 25 percent from the third to the fourth quarter of 1981.

In the first quarter 1981 surveys, when Reagan entered office, 37 percent of all families expected an improvement in business conditions during the year ahead, more than twice the 18 percent that expected a worsening economy. When asked at that time to explain their views, 33 percent made spontaneous favorable references to the government economic policies of the incoming administration, while just 8 percent mentioned these policies in an unfavorable context. By year end, the proportion that expected improved business conditions had fallen to 29 percent and nearly equaled the proportion that expected declines, which rose to 27 percent. When asked in the fourth quarter 1981 surveys to explain their views, half as many respondents made favorable references to government economic policies (16%, down from 33%), while unfavorable references to government economic policies increased (from 8 to 12 percent). Similar declines in favorable references to government economic policies were recorded among families with incomes of $20,000 or more (favorable references declined from 38 to 19 percent, while unfavorable references rose from 8 to 11 percent).

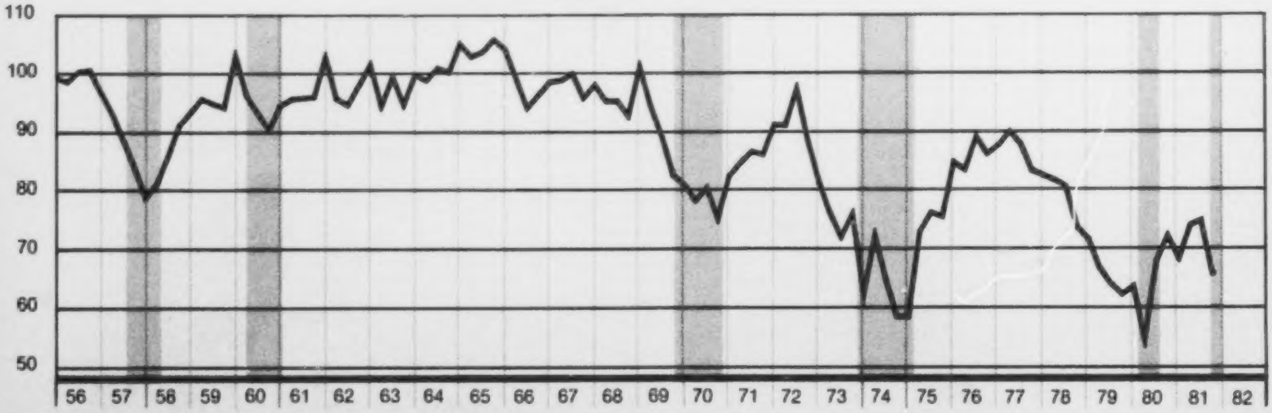
On balance, confidence in government economic policies designed to combat both inflation and unemployment declined in late 1981 from mid-year levels, but remained substantially higher than in prior years. In the fourth quarter 1981 surveys, 26 percent of all families rated government economic policies favorably, down from 30 percent in the third quarter. Unfavorable views of economic policies were held by 25 percent of all families in the fourth quarter surveys, up from 21 percent in the prior quarter. This decline in confidence was not shared by high income families. The proportion of families with incomes of $20,000 or more that held favorable views toward government economic policies rose to 33 percent by the second quarter of 1981 and has remained unchanged since then. These results suggest that declines in the current and expected rates of inflation helped to offset concerns over rising unemployment, especially among higher income families.

House Buying Attitudes Reach New Record Low

Attitudes toward buying conditions for houses started 1981 at an all-time low level, and by year-end established a new record low level. In the fourth quarter of 1981, just 18 percent of consumers rated house buying conditions favorably, compared with 76 percent that thought buying conditions were unfavorable. This marks the 50th month of cumulative declines since the last peak level was recorded in the second quarter of 1977, when 63 percent held favorable house buying attitudes, more than twice the 28 percent which held unfavorable attitudes at that time. When asked to explain their favorable views in 1977, the principal reason involved buy-in-advance price rationales, mentioned by 47 percent of all families. By the fourth quarter of 1981, only 7 percent mentioned buy-in-advance rationales, the lowest level since 1975. At the same time, references to high interest rates and tight credit conditions increased from 10 percent in 1977 to 81 percent by the close of 1981—the highest level ever recorded in these surveys. The diminished appeal of advance buying coupled with heightened concern with high interest rates were the major factors responsible for the overall decline in the housing

INDEX OF CONSUMER SENTIMENT

February 1966 = 100



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

market. In contrast, little difference was recorded from the 1977 peak to the 1981 trough in the portion that referred either to low prices making house buying conditions favorable (from 4 to 9 percent) or to high prices making buying conditions unfavorable (from 22 to 26 percent).

Car buying attitudes were unfavorable throughout 1981, and at the close of the year were at a somewhat more depressed level than at the start. In the fourth quarter 1981 surveys, 54 percent of all families rated buying conditions for vehicles unfavorably, up from 47 percent one year earlier. More families rated car buying conditions unfavorably than favorably at the close of 1981 for the 11th consecutive quarter (54 versus 36 percent in fourth quarter 1981). These figures are nearly the reverse of the balance of opinion recorded during the second quarter of 1978—the most recent peak level—when favorable exceeded unfavorable evaluations by 51 to 32 percent.

Consumer reactions to current market conditions for both cars and housing were similar in that few mentioned advance buying and record proportions made unfavorable references to high interest rates. From the 1978 peak to the end of 1981, buy-in-advance rationales in the car market fell from 38 to 13 percent, while references to high interest rates rose from 3 to 27 percent—the highest level in the history of these surveys. Unlike attitudes toward market conditions for housing, car buying attitudes have become more sensitive to current price trends, as well as to credit conditions. From 1978 to 1981, references to low prices making buying conditions more favorable and high prices making conditions less favorable both increased in frequency. References to low prices rose to 21 percent in the fourth quarter of 1981 from 7 percent in the second quarter of 1978. Unfavorable references to high car prices were made by 35 percent of all families in the fourth quarter of 1981, the highest proportion recorded since mid-1974. Consumers have come to expect both higher stricker prices and continued use of price discounts and rebate programs to promote sales, and as a result have become more sensitive to car pricing policies.

Interest Rate Declines Expected

In the fourth quarter 1981 surveys, 42 percent of all families expected interest rates to decline in the year ahead, compared with 27 percent that expected further interest rate increases. This reading stands in sharp contrast to the year-earlier reading, when increases rather than declines were expected by the margin of 51 to 23 percent. The combination of high current interest rates and the growing expectation of declines in the year ahead adds further incentive to postpone credit purchases. In addition, declines in the expected rate of inflation have increased the expected real cost of credit during the past year.

Postponement of Purchases Due to Interest Rates

Postponement of purchases due to high interest rates were reported by 33 percent of all households in the October-November 1981 surveys (see Table 1). The most frequently postponed purchases were vehicles (13 percent) and housing and home repairs (13 percent), followed by household durables (8 percent), and clothing and other items (4 percent). When asked about postponement of purchases following Carter's credit restriction program in early 1980, less than half as many families said they postponed credit purchases (15 percent), and the items postponed were more frequently household durables rather than vehicles and housing.

Table 1. INTEREST RATE EFFECT ON CONSUMER PURCHASES DURING THE LAST SIX MONTHS

	Purchases Postponed			
	All Items	Vehicles	Housing	Household Durables
Proportion postponing purchase	33%	13%[1]	13%[1]	8%[1]
Interest rate that would have been charged on postponed purchase[2]	17.5%	17.1%	17.1%	18.0%
Highest interest rate willing to pay to make purchases[2]	11.9	11.4	11.8	12.0
Difference between interest rate charged and that willing to pay[2]	4.8	4.7	4.6	5.9

[1]The sum of these percentages is greater than the total for "all items" because of multiple mentions.

[2]Median values for families who postponed a purchase.

The questions asked (October-November 1981) were "Have interest rates caused you to postpone making any purchases during the last six months? What was postponed? What interest rate would have been charged on any money borrowed for (item)? What is the highest interest rate at which you would have purchased (item)?"

Families that had postponed purchases were asked what interest rate would have been charged if they had made the purchase. The median overall response was 17.5% in the October-November 1981 surveys. When the purchase postponed was either a vehicle or housing the interest rate which prompted postponement was 17.1%, while a median of 18.0% was cited for postponed purchases of household durables. These figures are nearly identical to actual interest rate levels at the time of the survey and indicate a well founded awareness of interest rates on consumer loans, rather than superficial perceptions based on the much publicized prime rate.

The highest interest rate that these families were willing to pay to make the credit purchase they had postponed was 11.9%, on average. Families were willing to pay somewhat higher interest rates on credit for household durables (12.0%) than for housing (11.8%) and vehicles (11.4%). The gap between the interest rate which would have been charged and the interest rate people were willing to pay was 4.8% across most items, although the gap widened to 5.9% for purchases of household durables. Although the 5 to 6 percentage point gap is relatively large, the evidence suggests that interest rate declines of 2 to 3 percentage points would have a significant impact—one-third fewer postponements.

Buy American—Except When Import Prices are Lower or Quality Better

When asked whether they would be more willing to purchase a product made in this country than a product made in another country, American consumers voiced a distinct preference for domestic-made products—other things being equal. Among all families, 58 percent indicated they would buy American, while just 4 percent held a general preference for imports (see Table 2). About one third of all families replied that they had no overall preference, but that it depended on the type of product and its price and quality.

The vast majority of consumers that indicated a preference for products made in this country explained their views by references to patriotism (91 percent), while consumers that indicated an overall preference for products made in other countries primarily referred to cost considerations (82 percent). Respondents who indicated they were indifferent most frequently mentioned quality considerations (41 percent) as being the deciding factor. Among respondents who indicated a preference for products made in this country, vehicles and household durables were cited with nearly equal frequency. Among those with preferences for imports, products mentioned were even more heavily concentrated among vehicles and household durables.

Families that indicated an overall preference for products made in this country were asked if they would alter their buying behavior if prices and product quality differed between domestic and foreign-made products (see Table 3). Of the 58 percent that initially favored American products, only half (26 percent) still favored buying American products even if they were higher priced than similar foreign products. Consumers were even more responsive to quality considerations: the initial 58 percent was reduced to just 17 percent which would prefer to buy American-made products regardless of quality differences. Combining price and quality considerations, the initial appeal of American products was reduced from a preference of 58 percent to just 14 percent of all households. Consequently, the majority preference for American-made products only holds when product price and quality are similar. When foreign made products cost less or have better quality, social principle yields to economic self interest.

Summary Outlook

High interest rates coupled with heightened concerns about spreading unemployment have not only directly resulted in less favorable evaluations of current business conditions, but have also dampened confidence in the ability of government economic policies to promote more favorable future prospects. Buying attitudes remained near record low levels during the entire year of 1981 and foreshadow no better prospects for the first half of 1982. Large discretionary purchases will continue to be responsive to trends in interest rates, but more favorable employment and real income trends are necessary before sustained growth in housing and vehicle sales can be expected. In addition to the effect of interest rates, domestic car sales have been adversely affected by consumer reactions to high prices, as well as consumer willingness to buy imported cars based on price comparisons.

January 1982

Table 2. BUYING PREFERENCES FOR DOMESTIC VERSUS FOREIGN-MADE PRODUCTS

	Preference for Products Made in:		
	This Country	**Another Country**	**No Difference; Depends**
Proportion Preferring...	58%	4%	38%
Reasons Given for Country Preferences*			
Patriotic	91	–	–
Cost	16	82	27
Quality	17	25	41
Type of Product	–	–	20
Products Cited for Preference*			
Autos	58	71	–
Household Durables	55	65	–
Other Products	33	13	–

*Percentages may add to more than 100% because of multiple mentions.

The questions asked (October-November 1981) were "If you were going to make a major purchase do you think you would be more likely to buy a product made in this country, a product made in another country, or wouldn't it make any difference to you? Why do you say so? What *types* of products would those be?

Table 3. CONSUMER REACTIONS TO PRICE AND QUALITY DIFFERENCES OF DOMESTIC AND FOREIGN-MADE PRODUCTS

Proportion Preferring Product Made in this Country	58%
Reaction to Price Differences:	
Buy domestic regardless of price	26
Buy foreign if price lower	27
Depends	5
Reaction to Quality Differences:	
Buy domestic regardless of quality	17
Buy foreign if quality better	37
Depends	4
Reaction to Price and Quality:	
Buy domestic regardless of price and quality	14
Buy foreign if price lower or quality better	40
Depends	4

The questions asked (October-November 1981) were "If a similar product made in another country had a somewhat lower price would you still be more likely to buy the product made in this country? If the price were a *great deal* lower—would you still be more likely to buy a product made in this country? If a product made in another country was of somewhat better *quality*, would you still be more likely to buy a product made in this country? If the quality were a *great deal* better, would you still be more likely to buy a product made in this country?"

The Average Cycle and 1982

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Pronunciamentos about prospects for business conditions are about as bearish today as they were optimistic a year ago. At that time there was a quite general expectation that the early part of the year (1981) would be sluggish, but an accelerating improvement was projected for the latter half of the year. In fact, as everyone now knows, with some pain, the profile of the year was almost precisely the opposite. There was a strong first quarter, a flat middle half of the year, and a sharp decline at the end.

With a track record like this for last year, forecasters have been making their prognostications about 1982 (and beyond) with more evident (and some would say well-earned) diffidence and modesty.

With business activity moving downward at a decisive pace as 1982 opened, three sets of questions suggest themselves as we try to form some judgment about the future. First, what is the normal or average profile for the business cycle? In what important ways does this particular episode differ from average? And what does this all point to for the year or so ahead?

Business Cycle Profiles

The profile of the average business cycle, if essentially replicated this time, would be moderately reassuring because it would suggest that we are not far from the upturn. The recedence phase for the seven recessions since World War II has, on the average, lasted just over 9 months (Table 1). If July 1981 was the take-off month this time, a decline of average length would put the low point during April. That, however, is an average, and it is worth noting that three of the seven cycles had recedence phases lasting about a year—which, of course, would mean a decline running for three months or so more.

This much, at least, can be said. The current recession would be sharply out of context with our history if business conditions did not begin to improve by mid-year, and a low point during the second quarter would be a reasonable expectation based on our experience in other comparable episodes.

Table 1. LENGTH OF U.S. RECESSIONS

Recession of...	Months of Decline
1949	11
1954	13
1958	9
1961	9
1970	12
1975*	6
1980	5
Average	9.3

*Measured from September 1974, the month before the cyclical decline got under way.

Source of basic data: U. S. Department of Commerce

How far down is the declining phase apt to carry us? On the average, GNP in real terms has receded 2.4 percent from the prior peak before expansion has resumed (Table 2). If the 1982 recession turns out to be average, and last year's third quarter is assumed to have been the peak, real GNP would show another decline for the first quarter this year at a 4.4 percent rate. This is somewhat more severe than the usual forecasts seem to suggest for these early months of the year.

Table 2. DECLINE IN REAL GNP, PEAK TO TROUGH

Recession of...	Percent Decline: Actual	Percent Decline: Annual Rate
1949	1.5	3.0
1954	3.2	3.2
1958	3.3	6.6
1961	1.2	1.5
1970	1.0	1.9
1975	4.0	5.3
1980	2.6	10.0
Average	2.4	4.5

Source of basic data: U. S. Department of Commerce

When business activity finally turns up, the rate of expansion has traditionally been brisk. The rise in real GNP for the first six months after the low quarter has averaged a 7 percent per year rate (Table 3). Indeed, in only two cases since World War II has real GNP during these early months increased at less than a 6 percent per year pace—these two weak recoveries being in 1961 and in 1980. This average of 7 percent is close to double the rate of improvement that most forecasters project for the year after the low first quarter.

Table 3. INCREASE IN REAL GNP FROM LOW QUARTER TO TWO QUARTERS LATER

Low Quarter	Increase*
1949:4	15.0%
1954:2	6.8
1958:1	6.2
1960:4	5.0
1970:4	6.0
1975:1	7.1
1980:2	3.1
Average	7.0

*Seasonally adjusted annual rate.

Source of basic data: U. S. Department of Commerce

There, then, is the profile of our average cyclical experience during the last somewhat more than three decades. The declining phase has run for 11 months, with real GNP shrinking at a 4½ percent per year rate. And once the low point has been reached, output (real GNP) for the first two subsequent quarters has moved upward at, on the average, a 7 percent per year pace. Most forecasts suggest about an average length and almost average severity for this deline, but a decidedly more moderate rate of expansion once we round the bend at the bottom and start up.

The Current Downturn

Are there solid reasons for this cautious view, or are we seeing once again the usual viscosities that tend to afflict the forecasting process? This leads us to the second question. What are the conditions peculiar to this business cycle that may make it different from our average experience? In exploring these we must beware of a pessimistic bias. In any arraying of plus and minus forces that are shaping up for the economy, the minuses in the future are usually more visible than the plus factors.

Even so, there are some "special" factors that suggest that the decline will be of at least average severity followed by a recovery of sub-normal vigor. First, not at least until the end of 1981's fourth quarter were businesses able to avoid a further increase in their inventories, even though orders and production schedules had been cut back sharply. This suggests that the recovery of new orders may emerge slowly until these excess stocks are reduced further. This may have been accomplished by the end of this year's first quarter, but that would be crowding the processes of adjustment.

Second, economic policies this time are more explicitly directed toward a basic re-stabilization of the price level, with government prepared to take the near-term slack in the economy that was made inevitable by allowing the rate of inflation to accelerate during the last half of the 1970s. Countering the recession is no longer the almost exclusive objective of monetary and budget policies, and this limits the traditional tendency for government automatically to push on the throttle as signs of weakness in the economy appear.

Third, major institutional changes in our financial system, whatever their longer-term desirability, are posing near-term problems for the economy. Savings and loan associations, forced to pay competitive rates for funds but with a large proportion of their assets in earlier, lower-rate mortgages, lost roughly one-fifth of their net worth last year. Thus the traditional surge of funds into mortgages, which traditionally has fueled an expansion of housing as business conditions otherwise deteriorated, is not apt to occur this time. And with the disorganized market for long-term borrowing (an inevitable result of accelerating inflation), businesses have been forced into excessive short-term borrowing to finance long-term projects. They are, therefore, more exposed to danger from spasms in credit markets.

Finally, our export markets are apt to remain sluggish in 1982, in contrast to their strong showing in 1980 and early 1981. The economies of Canada and Europe, which account for almost half of our exports, are weak. The domestic economy of Japan (our second largest trading partner) is relatively strong, but the exchange rate of the yen is at least 20 percent below its true purchasing power parity, and our external trade with Japan will therefore continue to show a large excess of imports over our exports to Japan.

The Year Ahead

Hopefully, the year ahead will have a generous quota of those favorable developments that are usually difficult to see in advance. On balance, however, the higher priority to working through some structural adjustments, rather than simply countering the short-run recession, probably means a rate of expansion after the low point a little more sluggish than average, and the low point itself might not show up quite on schedule in April.

February 1982

Economic Policy Dilemmas for 1982

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As the recession of 1981-82 proceeds to unfold, the policy options available to the administration look to be very narrow indeed, a situation in large part of the administration's own making. The problem that seems to catch the most attention among both financial writers and economists—the looming budget deficits for the next several years—results largely from the administration's insistence on preserving the three-year, 25 percent tax cut, expanding defense outlays by some 50 percent over the next several years, and treating the Social Security program as sacrosanct in its present form.

The Problem

The basic dilemma faced by economic policy-makers in the present environment can be summed up by the simple proposition that a vigorous economic expansion probably cannot be achieved if interest rates continue to hold at double digit levels, while the large prospective budget deficits that seem a likely consequence of present policies are seen to be inconsistent with single digit interest rates. That policy dilemma is best seen as a potential problem, and may not create much difficulty during 1982: the economy is now in recession and is likely to be relatively weak throughout the year. But for 1983 and beyond, when vigorous recovery is expected to be well under way, the present stance of policy seems to contain a major inconsistency.

The 1982 Scenario

The short-term problem created by the looming deficit over the next year or so, although it may frighten Wall Street, does not appear to be especially troublesome. The basic reason is that an economy in recession, with declining or stagnant consumer demand and operating rates in the low-70-percent range, is not an economy which will generate very large private demands for credit. Thus the flow of personal and corporate saving is quite likely to be adequate to finance even the large deficits that are in prospect, without regenerating the kind of inflationary environment that everyone fears. And thus, during the coming year, it is not inconceivable at all that the economy will be characterized by a combination of declining short- and long-term interest rates, declining rates of inflation, and a very large federal deficit.

Beyond 1982

But beyond the period of recession and the early stages of recovery, difficulties will almost inevitably arise. As the economy begins to gather some momentum, perhaps around the middle of the year or during the second half as the July 1982 tax cut and rising defense outlays take hold, private demands for credit will begin to grow both in the business and the household sector. When that happens, the prospect of deficits of the order of $80 or $90 billion, combined with rapid increases in private demands for credit, will result in some borrowers being crowded out of the credit market. The crowding out will take the form of a resurgence of interest rates, pushing marginal borrowers out of the market. Since the Treasury cannot be pushed out, rates must rise high enough to push some private borrowers out. If the recovery follows the usual pattern, the sector most likely to be impacted by sharply rising interest rates will be the mortgage markets and thus the housing industry, aborting whatever recovery is under way there.

The basic reason that this scenario is widely perceived to be plausible by macroeconomists is that it is hard to see anything other than a very large budget deficit during 1983, given the administration's commitment to the tax cut legislation passed last year, their strong conviction that defense spending must be pushed up at rapid rates for compelling reasons of national security, and their inability, at least so far, to make any headway in modifying the Social Security program to create less of a budget drain. Between them, Social Security outlays and defense spending now account for roughly 50 percent of federal government spending and will account for a bigger proportion by 1983-84. With that much of the budget fixed, it is difficult to see how enough cuts can be made in the remaining entitlement and non-entitlement parts of the budget to keep the expenditure part of the budget within tolerable limits. For example, the non-defense/non-entitlement part of the federal budget comes to little more than 10 percent of the total; there is not much room for large expenditure cuts in that area. And on the revenue side, the existing tax cut legislation will take away much of the revenue gains that would normally ensue from an expanding economy, and the president's recent State of the Union message rejected any major new tax initiatives.

Alternative Solutions

There are only a limited number of things that the administration can do. The game plan is apparently to continue pressing for sharp reductions in entitlement programs, aside from Social Security, and to continue paring back on that modest part of the federal budget which is neither defense nor entitlements. Further cuts can obviously be made, and the Congress is likely to go along with some further reductions in at least some of the entitlements. But the deeper the cuts, the less likely the Congress to go along.

Another possibility is that the tax cut legislation and new high-interest saving options will have a much more pronounced effect on saving behavior than most people, including this writer, expect. If saving rates rise rapidly enough, even a pretty good-sized deficit could be financed without generating either crowding out via high interest rates or renewed inflationary pressure. Clearly the consumer sector is crucial here. It is not implausible that the combination of lowered inflationary expectations and opportunities for earning a substantial real after-tax return on savings may fundamentally alter the saving/income relationship, though this has been remarkably stable historically. Monitoring consumer expectations and attitudes will thus be especially important during the next several years.

Still another possibility, which would get mixed reviews from various quarters, would be for investment demand in the private business sector to become strong enough so that it would not be restricted much by even quite high interest rates, and for the burden of crowding out to fall on investments in the consumer sector—housing, cars, etc. There would be some productivity benefits if that scenario were to be realized, although the prospect of a vigorous demand for private business investment in the face of weak consumer markets for houses, cars, and all the industries associated with those two sectors seems an unlikely one.

Finally, there are obviously solutions which would permit a vigorous recovery without bringing back either double digit interest rates or double digit inflation rates—a scaling back of the scheduled increases in defense outlays plus a modification of the Social Security benefit structure to lower the rate of growth of outlays. And of course, the deficit could be held down by acting on the tax side—either making the third year of the tax cut contingent on performance, as some have suggested, enacting a series of excise taxes, or inventing something like a value-added tax. But for all those possible solutions, the administration is on record as being strongly in opposition.

Inflation

In the arguments over the budget deficits—how big they will be, how serious they are, how much damage will be done to the social fabric of the country by cutting more deeply into existing federal programs, whether new taxes are needed to reduce the deficit, etc.—much of the discussion seems to have lost sight of the one area (inflation) where administration policy has had considerable success and may have even more.

So far, the inflation rate has declined because of various events that can easily be categorized as good fortune, such as stable or declining prices for oil and food. But the core of the inflation problem has always been the stubbornness of increases in money wage rates, which represent the bulk of total costs and are the key determinant of most prices. There appears to have been a distinct slowing in the rate of increase of at least some of the money wage rate series—for example, average hourly earnings of production workers have declined in recent months from the 10 percent per year zone to one more like 7 or 8 percent.

While the data on negotiated wage settlements do not show any decline, the general impression one has of current negotiations in the automobile industry and the trucking industry is that wage settlements there are likely to be remarkably restrained compared to the past. Restrained settlements in those sectors may or may not set a pattern for wage settlements generally, but it would not be surprising if they did. Thus we can reasonably expect substantially more progress in rolling back inflation rates than most analysts thought likely a year ago—but at a considerable cost in higher unemployment rates.

Summary

Fortunately, one does not have to solve all of 1983's problems until 1982 is much further along than it is now, and that provides some breathing room—for the administration to rethink its stance on defense, Social Security and taxes, for the Congress to force a rethinking, for the supply-siders' optimism on saving and productivity growth to be realized even beyond their wildest dreams, or for some unexpected stroke of good fortune. Barring any of those, 1982 shapes up as a year which will not be very good in real growth terms, but which will not create any major problems other than those normally associated with recessions; 1983 shapes up as a year of economic policy confrontation.

February 1982

1981:4 GNP Statistics

As OUTLOOK went to press, preliminary fourth quarter 1981 GNP statistics were released by the Commerce Department. New values for the constant- and current-dollar series displayed in the GNP accounts sections of our Data Appendix table (p. 20) follow:

	1972 Dollars
Gross National Product	1,496
Personal Consumption Expenditures	958.3
Nonresidential Fixed Investment	159.2
Residential Fixed Investment	39.5
Change in Business Inventories	8.5
Net Exports	36.7
Federal Government Purchases	114.5
State & Local Gov't. Purchases	178.8

	Current Dollars
Gross National Product	2,985
Personal Consumption Expenditures	1,910
Gross Private Domestic Investment	443.6
Net Exports	16.0
Government Purchases	615.7
Disposable Personal Income	2,086
Personal Saving Rate (%)	6.0

Actual and Projected Economic Indicators

seasonally adjusted

SERIES FORECAST BY THE ASA-NBER PANEL

ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	Actual							Projected					Actual		Proj.
	1980:1	1980:2	1980:3	1980:4	1981:1	1981:2	1981:3	1981:4	1982:1	1982:2	1982:3	1982:4	1980	1981*	1982
GROSS NATIONAL PRODUCT	2,572	2,565	2,637	2,731	2,853	2,886	2,965	2,984	3,034	3,113	3,214	3,314	2,626	2,922	3,170
GNP IMPLICIT PRICE DEFLATOR (index, 1972 = 100)	171.2	175.3	179.2	183.8	188.1	191.1	195.6	199.5	203.2	206.9	210.3	214.2	177.4	193.6	208.8
CORPORATE PROFITS AFTER TAXES	182.9	146.5	159.1	164.3	169.2	152.7	156.3	141.0	140.2	149.0	159.0	168.1	163.2	154.8	154.0
UNEMPLOYMENT RATE (percent)	6.233	7.333	7.533	7.500	7.333	7.400	7.233	8.100	8.300	8.200	8.050	7.800	7.150	7.517	8.200
INDUSTRIAL PRODUCTION (index, 1967 = 100)	152.6	144.5	142.3	148.7	151.8	152.5	153.1	150.0	148.0	150.5	154.0	157.0	147.0	151.9	153.0
NEW PRIVATE HOUSING UNITS STARTED (millions)	1.234	1.055	1.390	1.535	1.391	1.176	0.968	0.900	1.000	1.180	1.280	1.450	1.303	1.109	1.250
CONSUMER PRICE INDEX (% change from prior quarter or year)	16.5	13.1	7.7	12.9	10.8	7.5	11.9	9.8	8.0	7.7	8.0	8.0	13.5	10.6	8.7
90-DAY TREASURY BILL RATE (%)	13.46	10.05	9.24	13.71	14.37	14.83	15.09	11.80	10.80	11.00	12.00	12.60	11.61	14.02	11.45
NEW HIGH-GRADE CORPORATE BOND YIELD (percent)	12.99	12.03	12.18	13.88	14.37	15.22	16.33	16.00	14.90	14.05	14.28	14.00	12.47	15.48	14.20
GNP IN 1972 DOLLARS	1,502	1,463	1,472	1,486	1,516	1,510	1,516	1,495	1,492	1,505	1,524	1,543	1,481	1,509	1,515
PERSONAL CONSUMPTION EXPENDITURES (1972 $)	943.4	919.3	930.8	946.8	960.2	955.1	962.8	965.5	969.5	974.5	984.0	995.5	935.1	960.9	979.5
NONRESIDENTIAL FIXED INVESTMENT (1972 $)	165.0	156.1	155.5	157.0	162.0	161.1	163.9	159.5	158.0	158.0	160.0	164.0	158.4	161.6	160.0
RESIDENTIAL FIXED INVESTMENT (1972 $)	54.2	43.1	44.7	50.6	51.0	47.8	42.7	41.0	41.0	43.0	46.3	50.0	48.1	45.6	45.0
CHANGE IN BUSINESS INVENTORIES (1972 $)	-0.9	1.3	-5.0	-7.2	-1.4	10.8	14.9	3.9	-1.0	3.5	3.9	5.6	-2.9	7.1	3.0
NET EXPORTS (1972 $)	50.1	51.7	57.6	48.5	50.9	46.2	43.2	39.0	39.3	39.5	35.0	39.0	52.0	44.8	38.8
FEDERAL GOVERNMENT PURCHASES (1972 $)	107.6	110.7	106.9	107.4	111.2	108.7	109.6	111.0	112.0	112.0	113.0	114.0	108.2	110.1	112.9
STATE & LOCAL GOVERNMENT PURCHASES (1972 $)	182.5	181.2	181.3	182.4	182.5	180.7	178.8	178.0	178.0	177.0	178.0	178.0	181.8	180.0	177.0

SERIES FROM THE CURRENT-DOLLAR GNP ACCOUNTS

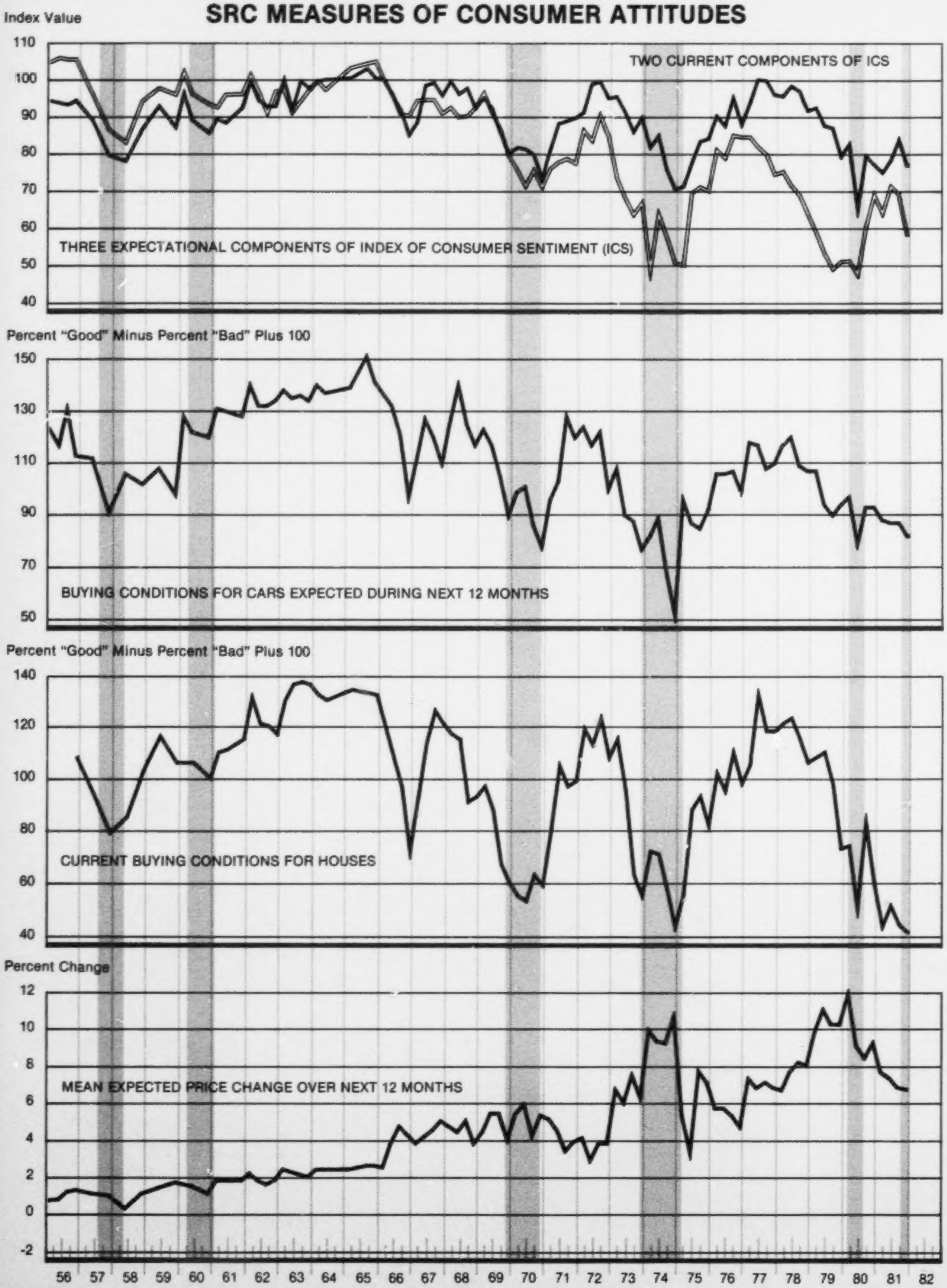
ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	1978:4	1979:1	1979:2	1979:3	1979:4	1980:1	1980:2	1980:3	1980:4	1981:1	1981:2	1981:3	1978	1979	1980
GROSS NATIONAL PRODUCT	2,272	2,341	2,375	2,444	2,496	2,572	2,565	2,637	2,730	2,853	2,886	2,965	2,156	2,414	2,626
PERSONAL CONSUMPTION EXPENDITURES	1,417	1,454	1,478	1,529	1,582	1,631	1,627	1,682	1,751	1,810	1,829	1,884	1,349	1,511	1,673
GROSS PRIVATE DOMESTIC INVESTMENT	392.6	408.3	423.2	421.7	410.0	415.6	390.9	377.1	397.7	437.1	458.6	463.0	375.4	415.8	395.3
NET EXPORTS	11.4	19.9	8.2	17.9	7.6	8.2	17.1	44.5	23.3	29.2	20.8	29.3	-0.6	13.4	23.3
GOVERNMENT PURCHASES	451.3	458.2	465.1	475.4	496.4	516.8	530.0	533.5	558.6	576.5	577.4	588.9	432.6	473.8	534.7
DISPOSABLE PERSONAL INCOME	1,531	1,580	1,613	1,664	1,710	1,765	1,784	1,841	1,897	1,948	1,986	2,042	1,463	1,642	1,822
PERSONAL SAVING RATE (% of disposable income)	4.8	5.3	5.6	5.4	4.7	4.9	6.2	6.1	5.1	4.6	5.4	5.2	5.2	5.3	5.6

*Averages of actual data, first three quarters, and ASA-NBER projections, fourth quarter.

Note: All data are at annual rates and in billions of current dollars unless otherwise indicated.

Sources: Projections: American Statistical Association—National Bureau of Economic Research panel of forecasters.
Actual Data: U.S. Departments of Commerce and Labor, Board of Governors of the Federal Reserve System.

SRC MEASURES OF CONSUMER ATTITUDES



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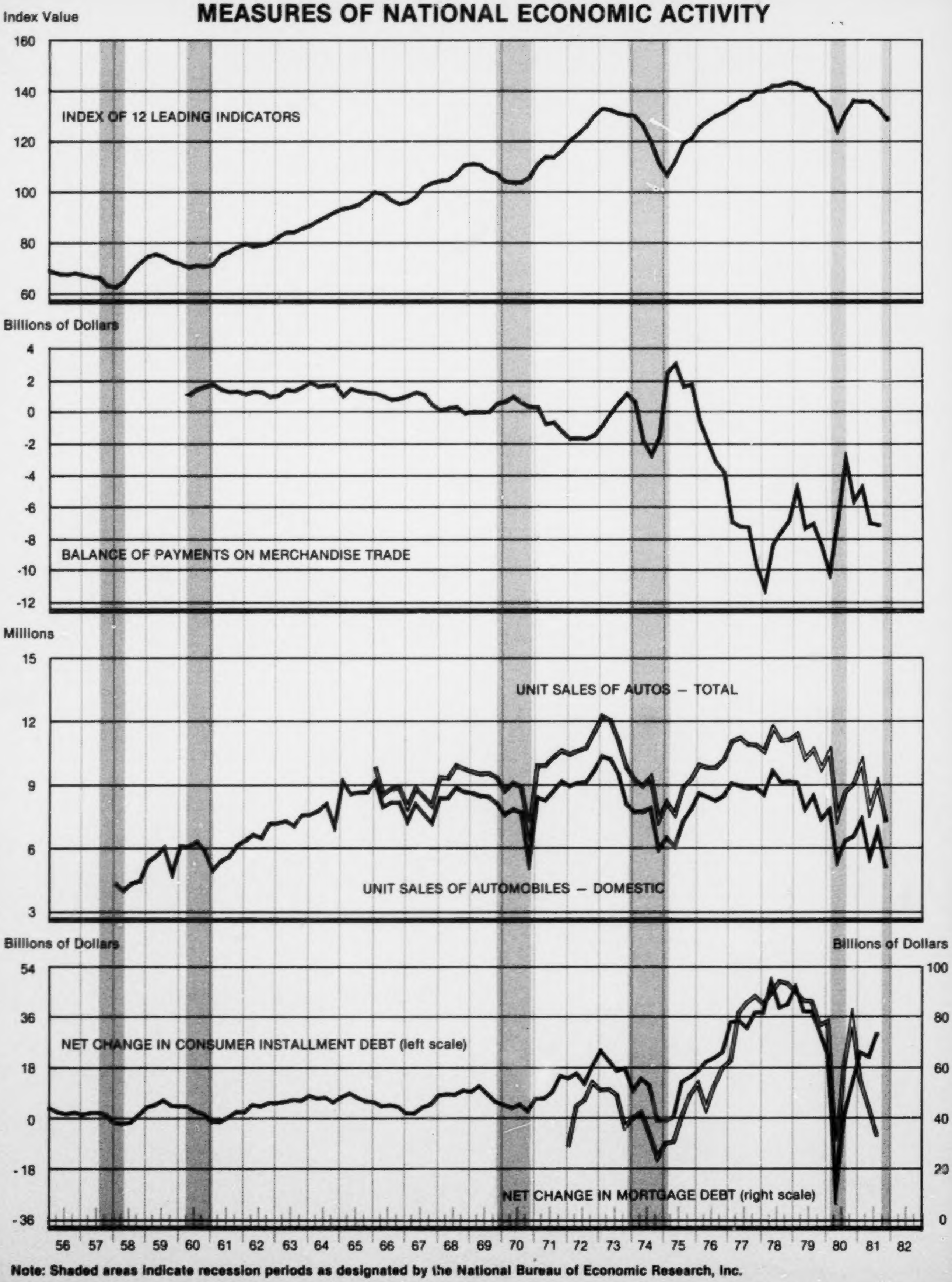
MEASURES OF NATIONAL ECONOMIC ACTIVITY



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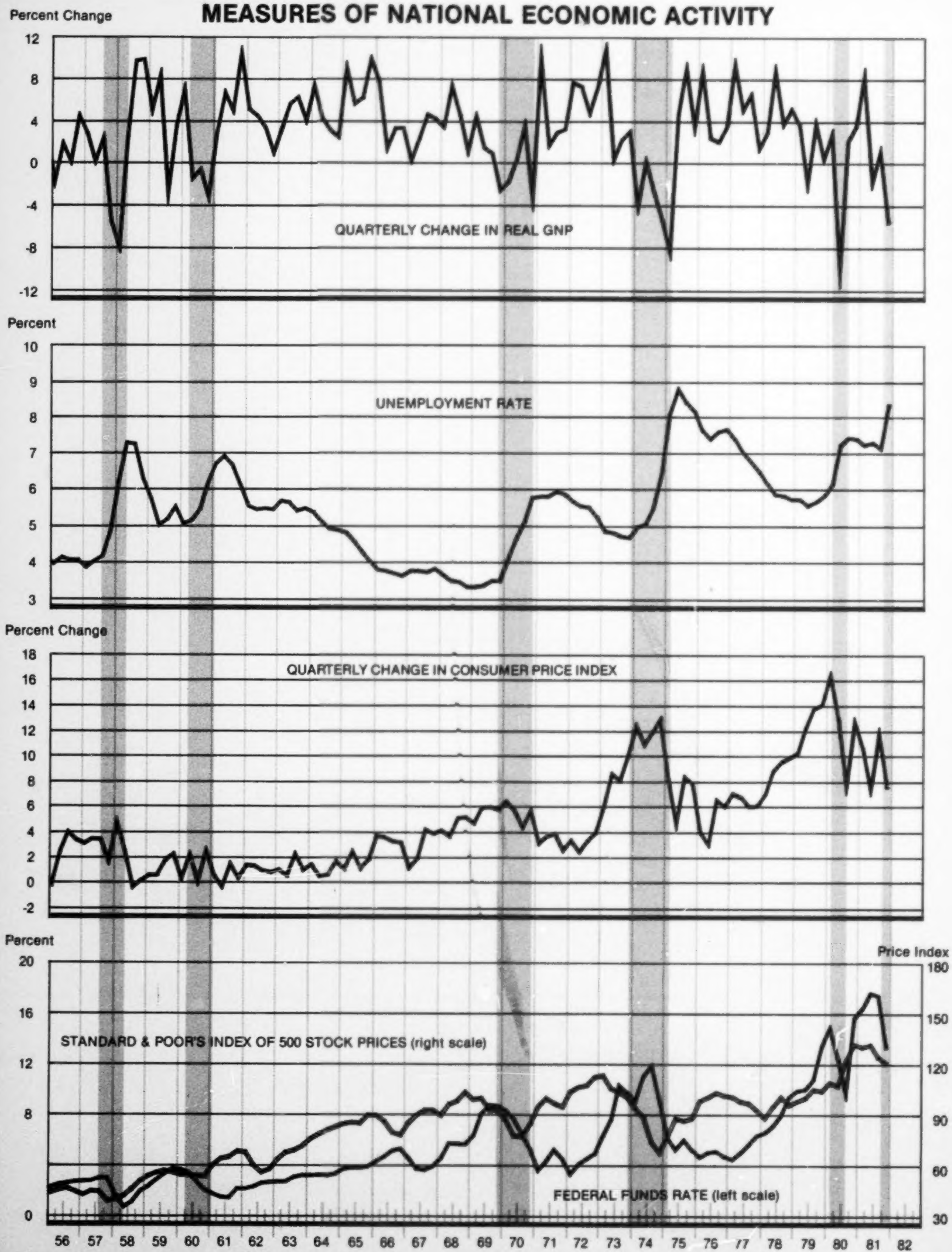
MEASURES OF NATIONAL ECONOMIC ACTIVITY



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A Guide for Selecting Statistical Techniques for Analyzing Social Science Data

Second Edition

by
Frank M. Andrews
Laura Klem
Terrence N. Davidson
Patrick M. O'Malley
Willard L. Rodgers

In its popular first edition, this handbook became a valuable reference tool for social scientists and data analysts in fields as diverse as psychology, sociology, economics, political science, education, public health, marketing, evaluation research, and statistics.

The substantially enlarged second edition retains most of the original material from the first edition, and adds significant new material that includes greatly expanded coverage of multivariate analysis. It presents a systematic, condensed overview of nearly 150 currently used statistics and statistical techniques and their applications.

The Guide outlines the sequence of decisions a social scientist might follow in selecting a particular statistic or statistical technique for a given analysis. The structure for this is a "decision tree"—28 pages of sequential questions and answers that lead the user to an appropriate technique. A short introduction that describes how to use the tree also suggests alternative strategies and some cautions that should be kept in mind.

For each statistic presented in the Guide a major reference is cited in Appendix A, including the specific pages on which the statistic is discussed and its means of computation given. Appendix B, which indicates where each statistic can be found in the output from computer software, has been expanded to include detailed information on sources in the OSIRIS, MIDAS, SPSS, SAS, and BMDP software systems.

A third appendix summarizes some additional statistical techniques that were judged too new or too rarely used to merit inclusion in the decision-tree portion of the Guide but that are potentially useful for social science data analysis. A glossary and thorough bibliography are also included.

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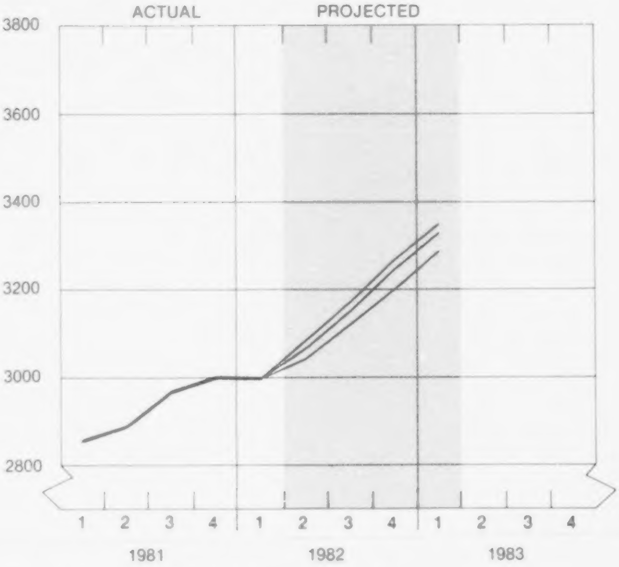
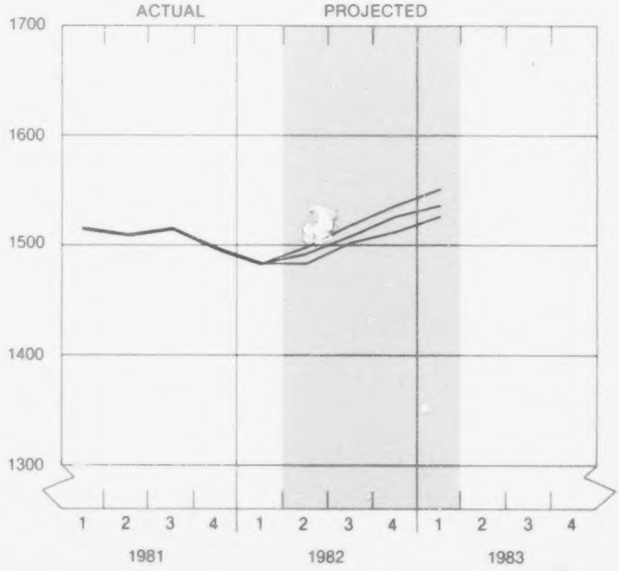
IN CURRENT DOLLARS
Billions of Dollars



Note: Actual data are from U.S. Department of Commerce; projected data are from ASA-NBER Panel of Forecasters, revised when necessary to be consistent with latest actual data. The 3 lines display 3rd, 2nd (median) and 1st quartile values from the array of forecasts.

GROSS NATIONAL PRODUCT

IN CONSTANT 1972 DOLLARS
Billions of Dollars



Note: Actual data are from U.S. Department of Commerce; projected data are from ASA-NBER Panel of Forecasters, revised when necessary to be consistent with latest actual data. The 3 lines display 3rd, 2nd (median), and 1st quartile values from the array of forecasts.

The Reagan Administration's First Year: Pluses and Minuses

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It is natural that interest centers mainly on what went wrong in the economy during the Reagan administration's first year, and I will come to that in due course, but let me begin with what went right.

Reducing Inflation

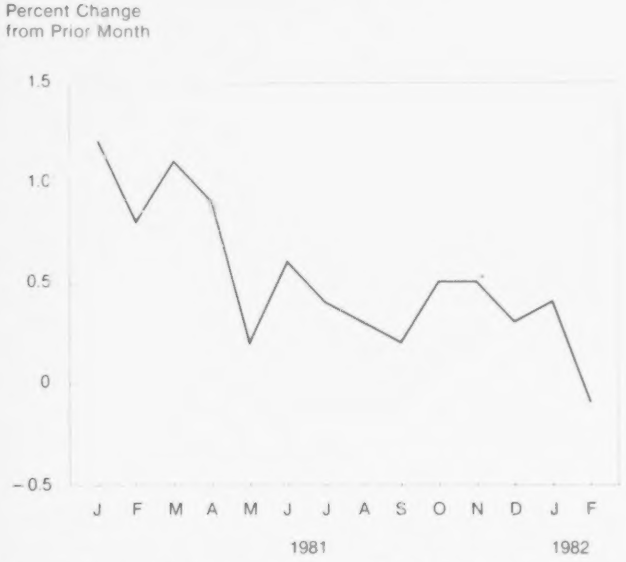
At the top of the list is the reduction of inflation. Monthly increases in the index of finished produced goods prices fell from 1.2 to 0.4 percent during the period January 1981 through January 1982, and the index actually declined 0.1 percent in February (CHART 1). Consumer prices have been more resistant but results there, also, are remarkable. The consumer price index (CPI) was rising early in 1981 at rates (compared with 3-month-earlier readings) that annualized to double-digit figures, but in January and February 1982 at less than 5 percent.

It cannot be assumed that increases in price indexes as low as in January/February 1982, let alone declines, will continue over the rest of the year; but money policy favors further reduction of the underlying inflation rate – M1 is targeted to increase significantly less in 1982 than in 1981 – as do two additional factors.

First, help should come from wage and benefit costs. In labor markets sheltered against market forces the message of disinflation has been slow to be delivered, but where market forces operate more promptly the tide of wage inflation is turning. Average hourly earnings of production workers in all private nonagricultural industries, which were rising 10 percent a year when 1981 started, were rising only 7.5 percent at annual rate in February 1982. In an index covering both wages and benefits, increases of 11.9 percent a year in 1981's first quarter declined to 5.5 percent by the fourth (see CHART 2). And, for the first time in the memory of most living persons, labor contracts are being reopened and modified for greater productivity and lower money increases. Cost-of-living escalator clauses that have given automaticity to wage inflation are being modified. Unfortunately, it has in most cases taken near disaster, if not actual disaster, for relief to accorded; and relief is as yet incomplete. Illustrating the latter, a preliminary estimate of wage increases in large collective bargaining agreements in 1981 (total effective adjustments) puts the average at 9.1 percent, down less than one percentage point from 1980. Labor cost disinflation is a long and painful process, but viewed in the proper perspective the 1981 result qualifies as a minor miracle!

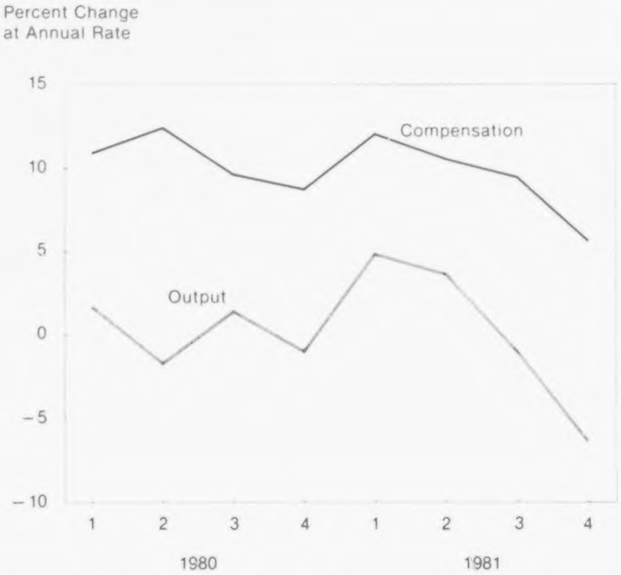
Second, inflation reduction in 1981 had little help from productivity improvement in the first half of the year and none at all in the second (CHART 2). Productivity normally improves in recovery, however, sometimes dramatically, exerting downward pressure on unit labor costs. With a

CHART 1: Monthly Change in Index of Producer Prices of Finished Goods, January 1981-February 1982



Source: *Economic Indicators*, February 1982, and *The New York Times*, March 13, 1982.

CHART 2: Quarterly Change in Compensation per Hour and Output per Hour, Private Business Sector, 1980-81



Source: *Economic Indicators*, February 1982, p. 16.

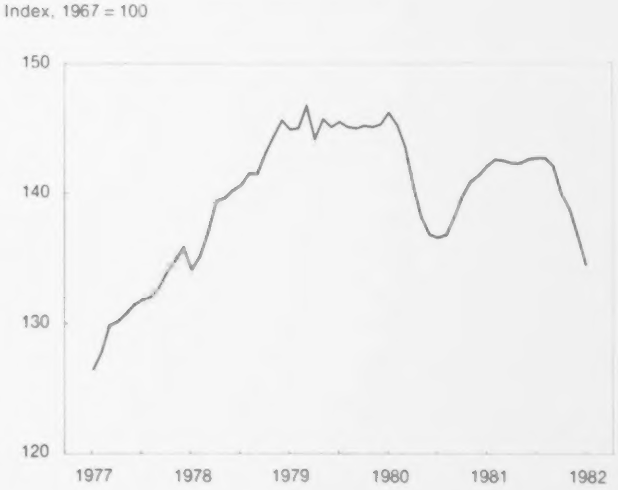
fair chance for recovery in 1982, productivity should be positive. Jointly with a slowing of compensation cost increases, it could be strongly favorable to a lower underlying inflation rate.

Parenthetically, one reads that inflation reduction was achieved in 1981 only because of recession, but that is not so. For prices, it began and proceeded with some momentum while the economy, in the first 6 months of 1981, was on a broadly flat trend (see CHART 3). It accelerated when recession began, especially as regards labor costs, but 1981 is evidence that recession, let alone deep recession, is not a condition essential to lowering inflation. In our institutional context, overcoming inflation is unfortunately a longer process without recession than with it, but not an impossible one.

Controlling Federal Spending

The administration's second major objective—to retard federal spending increases—also met with remarkable success. The 17.4 percent spending explosion in fiscal year (FY) 1980 was confronted with a force and success that inspired admiration in everyone with knowledge of how difficult it is to achieve federal budget economies of almost any kind. Unified budget spending in FY'81 was considerably higher than the administration opted for, but the increase was cut to 14 percent; and in the first 5 months of FY'82 it was down to 9.6 percent (over the comparable FY'81 months). In February, the Congressional Budget Office estimated that the FY'83 increase would be 5.7 percent, not appreciably larger than the 4.5 percent proposed in the administration's budget for that year (see CHART 4).

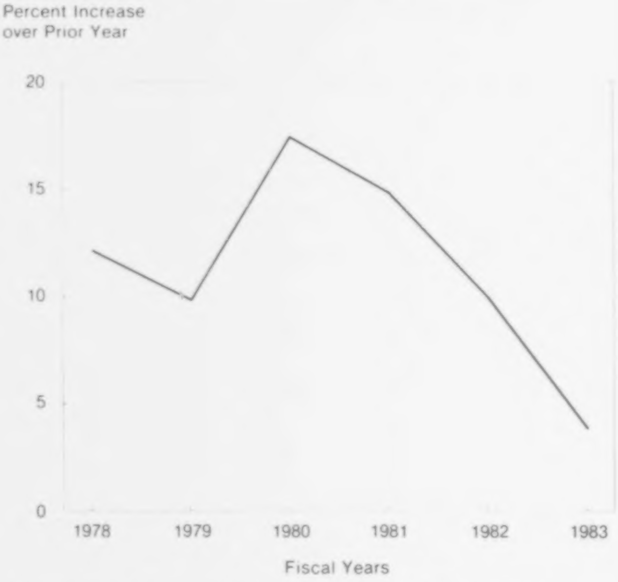
CHART 3: Composite Index of Four Coincident Indicators,* January 1977-January 1982



*Includes Industrial Production, total; Nonagricultural Payroll Employment; Manufacturing and Trade Sales, 1972 $; Personal Income less Transfer Payments, 1972 $.

Source: Bureau of Economic Analysis, Department of Commerce.

CHART 4: Change in Federal Outlays, Unified Budget, Fiscal Years 1978-83



Source: February 1982 Budget Message, p. 9-62. Actual values are displayed for fiscal years 1978-81, estimated for FY'82, and proposed for FY'83.

Inaccuracy in Forecasting

Now for the minuses. First, and most fundamental, was a near-term economic forecast that went awry. Instead of the expansion expected in 1981, 6 to 8 months of virtually no growth were followed by a recession which by January 1982 had reduced activity, measured by the composite index of coincident indicators, below the 1980 cyclical trough (CHART 3). And, encouraged by that forecast, a three-year succession of large tax cuts was proposed and enacted which, as the economy went into recession, transformed the promise of federal budgets moving toward balance into the prospect of their moving ever more out of balance. The fiscal year 1982 deficit is now estimated at more than twice what was officially projected as late as July 1981, and future deficits are seen as likely to remain at the FY'82 level or increase at least through FY'85. That the president's political opposition, most of the media, and virtually all the business community supported both the economic forecast and the tax proposals sealed their acceptance. With water over the dam, whether a better forecast could have been made qualifies on all counts as an academic question. But this being academic space, it is legitimate to comment on it.

First, recent economic fluctuations in this country and in Western Europe, to say nothing of Latin America, show that a significant slowing of inflation is typically accompanied by a slowing of the economy, and more often than not by recession. It was a mistake to think that, even under the stimulus of a generous but mainly long-term tax-reduction program, the U.S. economy would be an exception to this worldwide experience.

Second, if the postwar cyclical record of Western Europe did not demonstrate it, there were signs of trouble ahead in our monetary and credit markets. One need not have been a full-fledged monetarist to see that the money supply increases of mid-1980 – checkable deposits increased 19.6 percent a year between May and September – would at some point have to be confronted by a restraining monetary policy. Moreover, support for restraint was a major element, and properly so, in the administration's economic strategy. Was it not a virtual certainty that in this context the economy would be slowed substantially? I believe it was; indeed, the most optimistic forecast permissible as 1981 began was, in my view, that the economy would "bump along" with little or no upward movement, which it did for about 8 months. And the shift to a significantly lower growth rate was bound to present a risk of recession. In other words, while a forecast of broadly flat to moderately rising activity was reasonable for at least a time around the turn of the year, to have counted on expansion at a fairly high rate was expecting too much.

I believe that administration strategists have ground for complaint that recession has been deeper than it would have been in a more stable monetary climate, but there was more involved in this deepening than the monetary factor. The prospect of large and increasing budgetary deficits, which was widely recognized by midyear, became a separate force that monetarists and supply-siders were slow to acknowledge, making for high interest rates and, through these, for a deepening of recession. In short, if the monetary factor helped start recession, and to some extent aggravated it, the budget outlook was a major factor in its deepening.

Deficits, Credit Markets, and Recovery

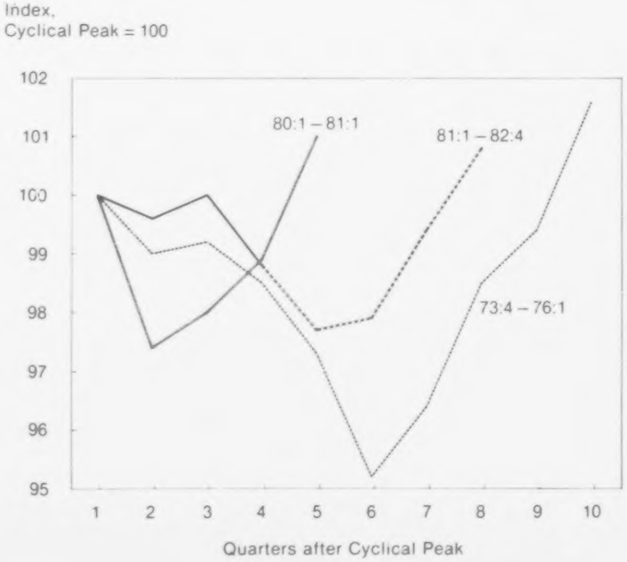
These questions are sure to be debated for a long time, but the issue now is whether recovery is possible in 1982 in the face of deficits that are large and stretch ahead for several years. My conclusion is that they will not block recovery, though they are clearly no help toward starting it; but the risk that, by raising interest rates, they will abort the advance before it can be transformed into sustainable growth is high enough to warrant taking steps now to reduce them.

Whether the self-destruct mechanism this implies comes into play will depend not only on the Treasury credit demands that deficits create but on how vigorously the economy recovers and on how much private credit demand is generated. Taking these two factors in turn, the volume of funds raised in credit markets by the U.S. government (estimated in the February 18, 1982 Federal Reserve flow of funds tables as $119.5 billion in 1981:4, on a seasonally adjusted annual rate basis) could rise – absent changes in present tax and spending arrangements – to $140 billion, annual rate, in 1982:4.

How credit demand from nonfinancial sources other than the federal government might move in the quarters ahead can be inferred at least roughly from the expected movement of real and nominal GNP. In my projections real GNP drops in 1982:1 at about a 4 percent annual rate, is up slightly in the second quarter, and increases in the third and fourth quarters sufficiently to bring output in the final quarter slightly above its pre-recession peak (see CHART 5). On this path, real GNP would be 2.1 percent higher in 1982:4 than in the corresponding 1981 quarter, and down 0.6 percent for 1982 as a whole. Even assuming that credit demand from nonfinancial sources other than the U.S. government in 1982 is roughly equal to what it was in 1981 – reflecting recovery in the former year that matches recession in the latter – the amount demanded in 1982:4 could be as much as 40 percent above the 1981:4 figure. Added to what the federal government will claim, which will rise more slowly than the demand from nonfederal sectors, total credit demand of nonfinancial borrowers could be close to 30 percent higher in 1982:4 than in the year-earlier quarter. Coming in a context of reduced money supply increases – which must be anticipated in 1982 if present Federal Reserve targets are met, as one must hope they will be – this would place a dangerously heavy demand on credit markets. Obviously, if Treasury needs exceed those projected above, and if the economy recovers sooner and more vigorously than my GNP projections picture, the credit-tightness risk would be heightened.

Granted no one can be sure how credit demands will evolve, but chances are they will be large enough by the end of 1982 and in 1983 to warrant making adjustments in the administration's February 1982 budget plan which will reduce prospective deficits by significant amounts and, correspondingly, reduce the risk that sharply rising interest rates will abort recovery. Any proposal to that end must be prefaced, however, by a warning that the timing and structure of whatever is done must take close account of the economy's cyclical prospects and long-term investment needs. Bearing that caution in mind, the following illustrates the broad dimensions of expenditure and tax adjustments that would narrow prospective deficits significantly:

CHART 5: Cyclical Comparisons of the Path of Quarterly Real GNP in Three Recent Recessions



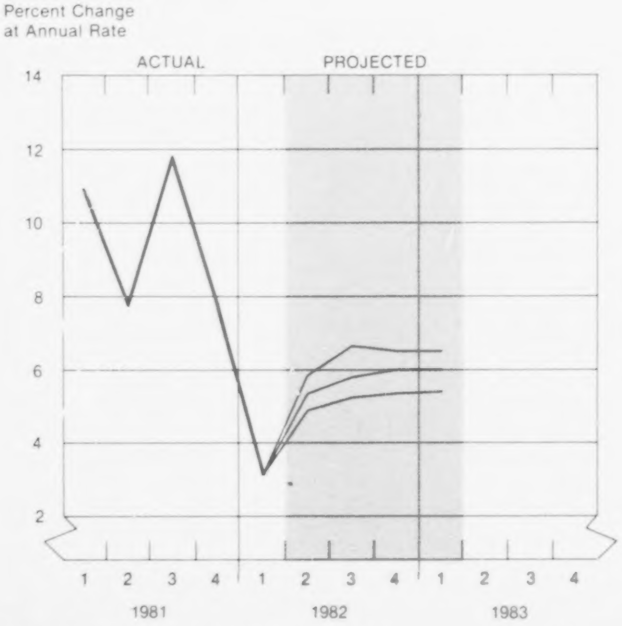
Sources: 73:4-76:1, *Business Conditions Digest*, May 1981, p. 98;
80:1-81:1, *Business Conditions Digest*, February 1982, p. 63;
81:1-81:4, *Economic Indicators*, February 1982, p. 2;
82:1-82:4, projections by R. J. Saulnier.

1. If budget outlays—as projected by CBO and including outlays of off-budget entities—are programmed to rise in FY'84 and FY'85 at the same 5 percent rate as in FY'83, instead of at the slightly higher rates projected in the February 1982 Budget Message; and
2. If FY'83 revenues are supplemented by around $40 billion by a partial deferral of tax reductions already enacted, plus levies additional to those proposed in the February 1982 Budget Message; and
3. If receipts rise in FY'84 and FY'85 from an elevated FY'83 base at the rate CBO uses, which is a reasonable expectation; then
4. The FY'85 deficit would be cut to around $56 billion from the $152 billion currently projected. There would, of course, be significant reductions along the way in the FY'83 and FY'84 deficits.

The practical problems of shaping and legislating a package of adjustments that would (1) be big enough; (2) require some stretching out of defense spending plans as well as additional economies in nondefense areas, and some deferral of tax reductions already enacted; and (3) be appropriately timed and structured for the economy's cyclical and long-term needs are as formidable as they are obvious. But if the goals the Council of Economic Advisers set out in its recent Economic Report are to be achieved, as should be possible—recovery in 1982 that regains all or most of the ground lost in recession, a transition to good growth in 1983, further cuts in the inflation rate, and lower interest rates—a package that accomplishes something approximating what was sketched above will be needed.

March 1982

CONSUMER PRICE INDEX



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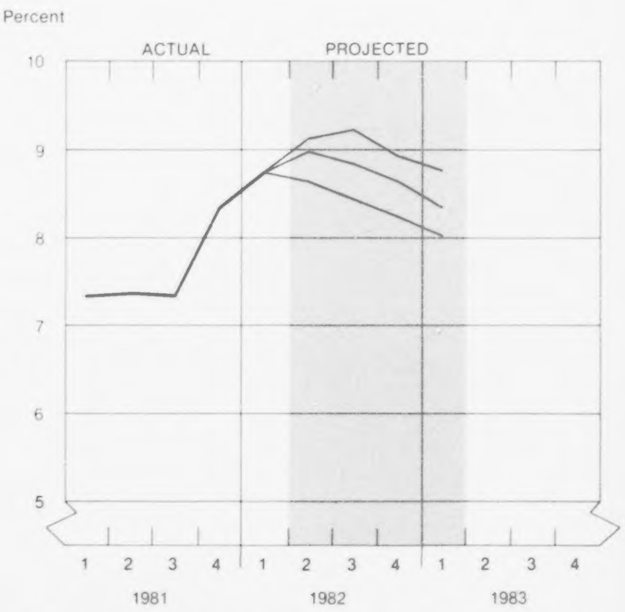
UNEMPLOYMENT RATE



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The U.S. Economic Outlook for 1982-83: Spring Update of the RSQE Forecast

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Evaluation of the November Forecast

At the Economic Outlook Conference in November we forecast that the recession was deepening and that real GNP would decline at an annual rate of 4.8 percent in the closing quarter of 1981. The decline in output was forecast to be paced by sharp declines in consumer durables, residential construction, and inventory investment, and a downturn in business fixed investment.* For the most part our forecast of the closing quarter of 1981 was right on track. The declines now estimated for residential building, inventory investment, and GNP itself are virtually identical to those we had predicted; and the declines in consumer durables and business fixed investment are very close to our predictions. Our major errors were offsetting mistakes in the forecasts of net exports and government purchases. Net exports were weaker than we had forecast primarily because of a sharp drop in the real value of service income from abroad. Government purchases rose sharply as spending by the federal sector exceeded our projections both for defense and for the purchase of surplus agricultural stocks.

The rate of inflation slowed even more than we had forcast in 1981:4, the unemployment rate rose as predicted, and short term interest rates fell by more than three percentage points as forecast.

The Problem of Interest Rates

Overall, the economy ended the year 1981 about on the track of our forecast, with one important exception. While short-term interest rates fell sharply for the quarter as a whole, by the end of December rates were climbing again despite the deepening recession. After reaching a low of about 10½ percent in December, the treasury bill rate spiked back up to 14¼ percent in mid-February. This sharp rise in interest rates was in no way anticipated in our November forecast and has deepened the recession during the early months of 1982.

While it is too soon to be able to provide a definitive explanation for the entirely uncharacteristic rise in interest rates during the current recession, it is possible to offer some tentative hypotheses. One hypothesis relates to the Federal Reserve's conduct of monetary policy. During the first half of 1981 the Fed permitted the monetary base to grow at an annual rate of about 5¾ percent, the economy was expanding rapidly, and short-term interest rates rose sharply. Interest rates then declined from mid-May through June as the economy slowed down. From mid-July through mid-October the Fed slowed the growth of the base to an annual rate of only 2.9 percent. With the tightening of monetary policy interest rates turned sharply up again despite the developing economic recession. During this period of rising interest rates, the rate of growth of M1 – which is highly sensitive to the movement of market rates – declined substantially. Indeed, the miniscule M1 growth rate was threatening to drive M1 well below the Fed's target range. In contrast, the growth of M2 eased off only slightly in the summer and fall, and M2 was proceeding roughly in accordance with the upper end of the Fed's target range. It appears that the sharp decline in M1 growth was primarily a phenomenon of portfolio management in the context of high interest rates. Nonetheless, the M1-watchers at the Fed began to accelerate the growth of the base in the late fall – presumably to raise the M1 growth rate. Simultaneously the recession began to deepen, and at first interest rates responded by dropping sharply. The decline of interest rates contributed to a substantial shift in portfolio balances in favor of M1, which then proceeded to grow rapidly and thus put *upward* pressure back onto interest rates. The Fed's concern then turned to the possibility of too rapid growth of M1, the level of the monetary base began to fluctuate widely during January and February, and the spiking of interest rates contributed to an actual drop in the level of M1 during most of January and February. The moral of this suggestive story is that the money markets – and therefore the economy – continue to be buffeted by the Fed's attempt to control both M1 and M2 without being able, simultaneously, to control interest rates.

A second hypothesis has to do with expectational effects. A strongly held conviction that interest rates will remain high can surely contribute to keeping interest rates high. If the credit market participants are slow in adjusting inflationary expectations downward as the actual inflation rate eases – just as the markets took a considerable time to come to view high inflation as the "norm" – then the inflation premium in interest rates will remain high. If the post-1979 operating rules of the Federal Reserve System have contributed to increasing the variance of interest rates, the suppliers of credit might well insist on a higher average risk premium on the expectation of greater uncertainty of yields. If enormous federal budget deficits are perceived as a "bad thing" because they are expected to strain the financial markets or because they are expected to be inflationary, then budget deficits will contribute to the expectation that interest rates must remain high or increase. It may well be that all three of these factors are operating currently, with the result that interest rates tend to exhibit a more substantial degree of upward bias than might be justified by the so-called fundamentals.

In recent weeks short-term interest rates have again declined sharply and at this writing the treasury bill rate is about 12½ percent. While low compared with the rates of mid-February, 12½ percent is still well above the level of a few months ago and seems high by comparison with the current rate of inflation, the weakness of credit demands emanating from the depressed private sector of the economy, and the growth rate of the monetary base. To anticipate the forecast, we believe that an economic recovery will take hold within the next few months if interest rates remain at or below current levels. A quick return to short-term interest rates above 15 percent would almost surely prevent a near-term end to the recession.

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*See our Winter 1982 issue (pp. 3-9) for details of the November forecast.

Inputs to the Forecast

The federal budget is now beginning to exert an expansionary impact on the economy through rising defense outlays and the first stage of the Reagan tax cut. The budget impact, however, has been weak compared with the administration's expectations. High interest rates and the sharp economic downturn have combined to forestall the anticipated acceleration of capital formation, and the consumer sector is showing weakness due to high unemployment and interest rates. On the plus side, inflation has slowed dramatically, which has helped to sustain purchasing power; and interest rates have moved down in recent weeks.

The *federal expenditure assumptions* in our forecast are shown in Table 1, which also compares our projections with the current proposals of the administration regarding the fiscal 1982 and 1983 budgets. The federal expenditure levels in our forecast exceed the official projections by \$7½ and \$17½ billion in FY '82 and FY '83, respectively. Principally, the discrepancies derive from interest payments which are higher in our projections than in the official projections by \$6 and \$15 billion in fiscal '82 and '83 respectively. Over the two years from fiscal '81 to fiscal '83 we are projecting a 17¾ percent average annual rise in defense spending, which is consistent with administration plans and well above the average annual increase of 11½ percent registered during the past five fiscal years. We are expecting nondefense purchases and grants-in-aid to remain slightly above the administration's targets. Even so, these expenditure areas are expected to bear a good deal of the brunt of the administration's policy of cutting nondefense programs.

TABLE 1. Federal Government Expenditures and Receipts (National Income and Product Accounts, billions of dollars)

Expenditures, Receipts, and Deficit	Fiscal 1981[1]	Fiscal 1982 OMB[2]	Fiscal 1982 RSQE[3]	Fiscal 1983 OBM[2]	Fiscal 1983 RSQE[3]
Total Expenditures	667.9	741.4	748.8	787.6	805.1
Purchases of Goods and Services	218.3	249.0	254.4	272.9	277.4
National Defense	147.1	174.1	178.4	203.2	203.9
Nondefense	71.2	74.9	76.0	69.7	73.5
Transfer Payments	279.7	312.1	308.3	330.8	327.6
Grants-in-Aid to State and Local Governments	90.1	86.3	86.3	76.8	78.0
Net Interest Paid	66.9	81.4	87.3	95.9	111.0
Subsidies Less Current Surplus of Gov't. Enterprises	13.0	12.5	12.5	11.2	11.2
Total Receipts	613.0	641.0	624.8	685.7	652.6
Deficit	54.9	100.4	124.0	101.9	152.5

[1] Data for fiscal year 1981 are from Bureau of Economic Analysis, U.S. Department of Commerce, *Quarterly Pattern of Federal Receipts and Expenditures, National Income and Product Accounts Basis, Fiscal Year 1983 Budget Translation*, February 1982.

[2] The OMB budget projections for fiscal years 1982 and 1983 are given in the source cited above.

[3] RSQE projections.

On the revenue side of the federal budget, our forecast is based on current federal tax laws. Thus the business and personal tax cuts contained in the Economic Recovery Tax Act of 1981 are all included in the forecast. The business tax cuts—basically the Accelerated Cost Recovery System—are already in effect retroactive to January 1981, and the first stage of the personal tax cut reduced personal taxes by 5 percent per year in October 1981. Stages two and three are scheduled to become effective on July 1, 1982 and July 1, 1983, with personal taxes being reduced on each occasion by 10 percent, or roughly \$30 billion per year.

It is now well understood that the tax and expenditure programs of the Reagan administration imply enormous budget deficits. Our budget projections in conjunction with our economic forecast imply deficits on an NIPA basis of \$124 billion in fiscal 1982 and \$152 billion in fiscal 1983. While these deficits are considerably above official administration projections, they are not out of line with the developing consensus of non-official projections.

At present, the president's public posture is to resist the growing pressure to cut the proposed increases in defense spending and to raise taxes. In particular, there seems to be a very strong reluctance to give up any part of the July 1982 tax cut, which is being counted on to invigorate the recovery from the current recession. We will return to the question of variations in fiscal policy later in this report when it can be discussed in the context of the overall economic outlook.

Our reading of Federal Reserve policy leads us to the conclusion that as long as fiscal policy is highly expansionary, the intended monetary policy will be somewhat restrictive. That is to say, the aim of monetary policy is to keep inflationary expectations coming down now, and to lower the likelihood of excess demand inflation developing in the future as the economy recovers from the recession and resource utilization increases. As already indicated, we have concerns about the ability of the Fed to pursue such a policy efficiently with its current operating rules. But we have no basis for projecting when and by how much the Fed might deviate from a policy of fairly smooth growth of the monetary base. We are therefore assuming that *the monetary base will be allowed to grow at an annual rate of 6 percent* during most of this year, and at a rate of 5 percent during 1983. This reduction in the rate of growth of the base in 1983 is consistent with our sense that the Fed will want to slow down the growth of the monetary aggregates as inflation is reduced and as the danger of excess demand growth increases.

We are assuming *no adverse supply shocks* in the area of farm prices or petroleum prices. We have projected a 6 percent path for the price of farm products in 1982 and 1983. We have assumed that petroleum prices will continue to decline for the next several months and that oil prices at mid-year will be about 4 percent below where they were at the start of the year. We expect oil prices to begin to rise after mid-year with a 3 percent annual rate of increase in the second half of 1982, a 5 percent rate of increase in the first half of 1983, and a 7 percent rate of increase in the second half of 1983. These assumptions imply a continued decline in the real price of oil through mid-1983. Natural gas prices are assumed to rise at an annual rate of about 14 percent as scheduled in current legislation regulating the decontrol of natural gas prices.

We are anticipating continued *weakness in the volume of U.S. exports*, with real exports declining at an annual rate of 2½ percent during the first half of 1982 and then recovering slowly to an annual growth rate of 2 percent by the second half of 1983.

Summary of the Forecast

Based on the input assumptions discussed, the Michigan Model forecasts a decline in real GNP in 1982:1 followed by an upturn in 1982:2. Table 2 summarizes the forecast for 1982-83 by focusing on the key indicators of macroeconomic activity. Substantial declines in auto sales, residential construction, and inventory investment were the major factors accounting for the sharp drop in real GNP in the closing quarter of 1981. The 3.3 percent decline (annual rate) in real GNP predicted for 1982:1 is paced by an accelerated decline in real business fixed investment, a further decline in inventory investment, and a drop in real government purchases. The latter derives primarily from the assumption that federal purchases of surplus agricultural commodities will be at a considerably lower level than in the closing quarter of 1981. Consumer durables purchases are expected to increase in the current quarter, primarily because first-quarter auto sales are running well above the levels in the depressed fourth quarter of last year. The upturn in car sales in January and February is a fact which tends to be hidden by the common practice of comparing current car sales with the same period a year earlier. Car sales have been weak in comparison with year-ago levels but are clearly up when compared with the closing months of 1981.

The unemployment rate is expected to average 8.8 percent in the current quarter, up from 8.3 percent in 1981:4. Profits are expected to decline by about $15 billion in the current quarter, following a decline of $19 billion in 1981:4. Interest rates will be up on the average for the quarter as a whole, despite the decline of recent weeks.

In our forecast the first quarter of 1982 marks the end of the recession. The recovery begins with real GNP increasing at an annual rate of 2½ percent in the spring quarter. Car sales are forecast to average 9.1 million units at annual rate in 1982:2, up from the forecast 8.6 million units in the first quarter. Housing starts are forecast to rise from 902 thousand units at annual rate in 1982:1 to 1,041 thousand units in the second quarter. Although business fixed investment is forecast to decline again in 1982:2, the rate of decline is less than half that forecast for the first quarter of the year.

The economic recovery is forecast to accelerate substantially following the mid-year tax cut, and the growth of real GNP averages 5.9 percent at annual rate in the second half of 1982. The recovery is paced by substantial gains in auto sales and residential building activity, rising plant and equipment purchases, and a recovery in inventory investment.

TABLE 2: Summary of RSQE Forecast

	Actual	**Projected**				
Economic Indicator	**1981:3-1981:4**	**1981:4-1982:1**	**1982:1-1982:2**	**1982:2-1982:4**	**1982:4-1983:2**	**1983:2-1983:4**
Percent Changes at Annual Rate:						
Real Gross National Product (1972 $)	−4.7	−3.3	2.5	5.9	5.8	6.5
Consumption	−2.3	1.4	3.8	5.6	4.9	5.6
Durables	−18.8	7.7	7.0	13.1	11.5	11.6
Business Fixed Investment	−5.1	−12.8	−5.6	3.0	10.1	12.9
Residential Construction	−28.1	−3.4	29.2	34.7	24.6	18.5
Government Purchases	10.5	−1.8	−1.9	2.8	2.4	4.0
Private Nonfarm GNP Deflator	8.6	6.3	5.1	5.1	5.3	5.0
Consumption Deflator	7.8	6.1	5.8	5.6	5.6	5.5
Private Nonfarm Productivity	−6.6	−3.7	0.8	3.4	3.6	3.3
Real Disposable Income	1.4	−0.3	2.3	7.7	4.3	7.7
Level in Terminal Quarter:						
Aggregate Unemployment Rate (%)	8.3	8.8	9.2	8.8	7.9	6.8
Automobile Sales (millions of units)	7.4	8.6	9.1	10.5	11.6	12.6
Housing Starts (thousands of units)	871	902	1,041	1,280	1,475	1,636
Inventory Investment (billions of '72 $)	6.2	−2.0	−1.2	3.2	9.0	14.2
Corporate Profits (billions of $)	176.9	162.4	158.3	177.1	200.3	224.5
Federal Deficit (billions of $)	100.5	118.5	117.7	150.3	140.4	164.4
90-Day Treasury Bill Rate (%)	11.8	12.7	12.4	11.9	11.4	11.4
Corporate Aaa Bond Rate (%)	14.6	15.1	15.0	14.8	14.7	14.5

Note: Data are seasonally adjusted at annual rate where applicable. Corporate profits include inventory valuation and capital consumption adjustments.

In our forecast the unemployment rate peaks at about mid-year, with the highest quarterly average at 9.2 percent, and is back down to 8.8 percent in the closing quarter of 1982. With the expansion continuing at an average growth rate of about 6 percent during 1983, the unemployment rate declines to 6.8 percent in the fourth quarter of 1983. In that same quarter, car sales are forecast to be at a 12½ million unit rate, housing starts at a 1.6 million rate, and corporate profits at a level of $224 billion—about $60 billion above the levels of early 1982. The rate of inflation—as measured by the consumption deflator—is forecast to decline from 6 percent in 1982:1 to about 5½ percent in the second half of 1982 and to remain at that rate during 1983.

The Deficit, Interest Rates, and Continued Expansion

Our forecast implies that the credit markets will not be strained during the first year and a half or so of the economic recovery, despite the mounting federal deficit. It must be remembered, in this connection, that the tax cuts which reduce the liquidity of the federal government and force it to increase its borrowing provide an equivalent increase in the liquidity of the private sector of the economy. The subsequent economic expansion, of course, implies an increase in total credit demand during 1982-83. The Fed's assumed provision of a 5-6 percent rate of growth of the monetary base—in conjunction with moderate inflation—permits these credit demands to be satisfied without an increase in interest rates. Indeed, the short-term treasury bill rate declines slightly from early 1982 through mid-1983 in our forecast and then stabilizes at about 11½ percent in the second half of 1983. This path of interest rates is crucially important to the strength of the economic expansion we are forecasting for 1982-83.

The period beyond 1983, however, is likely to be troublesome if we are right about the 1982-83 expansion. Our forecast has unemployment down to 6.8 percent and capacity utilization up to 81 percent by late 1983. Current administration plans imply an expansionary fiscal policy continuing well beyond 1983. At that point the upside risks of excess demand and renewed inflation will almost surely imply a tightening of monetary policy and substantial increases in interest rates, even without destabilizing expectations which would by themselves contribute to rising interest rates. Thus, the federal government is going to have to come to grips with its grossly unbalanced budget by fiscal '84 at the very latest in order to avoid a serious clash between monetary and fiscal policy—a clash which could easily result in a return of stagflation by 1984.

Further, if our forecast is too optimistic about the continued moderation of inflation, the path of interest rates in 1982-83 could easily be above that which we are now forecasting. Substantially higher interest rates could well jeopardize the predicted expansion.

Even if inflation proceeds along the path we are predicting, adverse expectations about the short-term financial consequences of the federal deficit—whether justified or not—would imply a significant risk that interest rates will move up relative to our forecast and negate a significant part of the projected economic recovery. This, indeed, may be the strongest reason to urge that steps be taken to reduce the federal deficit in fiscal '83 rather than waiting for fiscal '84 to do so. It is being argued by many observers of activity in the financial markets that stability of interest rates requires a clear and credible indication that the federal deficit will be reduced. Decisions that reduce planned defense outlays and eliminate or attenuate the personal tax cut scheduled for July 1983 may be the only kinds of action which would provide the necessary degree of credibility. Although such actions would reduce the budget's expansionary impact, the net effect on the economy due to stabilizing-expectations and reducing the likelihood of a tightening of monetary policy may well justify the implied fiscal restraint.

March 1982

Spreading Unemployment Clouds Confidence in Government

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Cross-Currents Leave Sentiment Unfavorable

In the first quarter 1982 surveys, the Index of Consumer Sentiment averaged 66.5, unchanged from the 65.7 recorded in late 1981 and slightly lower than the year-ago reading of 68.3 (see the ICS Chart, below). Concerns about spreading unemployment and lessened confidence in government economic policies have led consumers to view the prospects for future business conditions less favorably.

Significant cross-currents in consumer attitudes and expectations have developed during the past year. Lower rates of inflation initially improved prospects for the economy as a whole as well as for the individual consumer, but recently heightened concerns about unemployment have erased these improvements. Unemployment, not inflation, was singled out as the more serious economic problem facing the nation in early 1982. The shift in concern from inflation to unemployment has been accompanied by lessened confidence in government economic policies. Consumer attitudes toward buying conditions have improved due to price declines, with references to low prices and the availability of good buys more frequent in the first quarter 1982 surveys than during the past decade. The favorable impact of reduced inflation rates on buying habits, however, has been completely offset by high interest rates. These cross-currents have left most consumers very cautious and not yet willing to incur new debt or use accumulated savings to make large purchases.

Unemployment as the Dominant Concern

Eight-in-ten consumers in the first quarter 1982 surveys thought that business conditions had worsened during the past year. Less favorable evaluations of current business conditions have been recorded only at the 1974-75 and 1980 recession lowpoints—when the proportion reached nearly nine-in-ten. When asked about recent economic developments, 40 percent of all respondents had heard and recalled news of spreading unemployment in the first quarter 1982 surveys, up from just 18 percent one year earlier. (The first quarter surveys were completed before the record 9% March unemployment level was announced.)

Even with the current high level of unemployment, the majority (53 percent) of respondents in the first quarter 1982 surveys expected unemployment to increase further during the year ahead. The concern with spreading unemployment has been greatly heightened during the past six months. In contrast, the expected inflation rate has fallen steadily during the past year, to 5.6% in early 1982 from 7.7% in the first quarter of 1981, and is now less than half the level expected in early 1980 (11.9%).

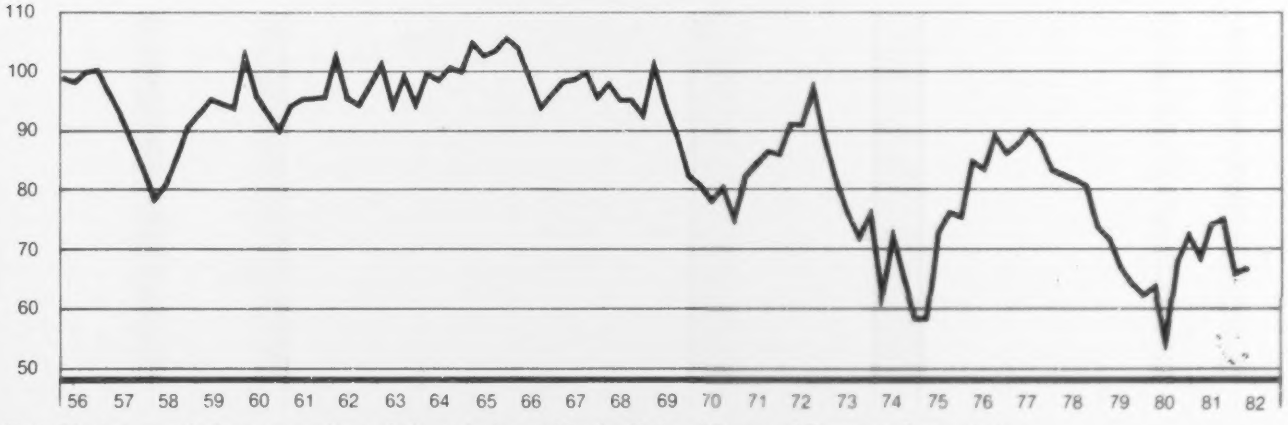
When asked whether unemployment or inflation represented the more serious economic hardship facing the nation, respondents registered the widest margin of concern with unemployment since the early 1970s (61 versus 26 percent). This shift in concern toward unemployment over inflation was as prominent among families with incomes of $20,000 or more. From the 1981 to 1982 first quarter surveys, the proportion of high-income families that viewed unemployment as the more serious problem rose from 33 to 64 percent, while the proportion that viewed inflation as the more serious problem fell from 57 to 26 percent.

Confidence in Government Economic Policies Declines

Consumers expected improvements in business conditions somewhat more frequently in early 1982 than in late 1981, but overall prospects for business conditions were

INDEX OF CONSUMER SENTIMENT

February 1966 = 100



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

less favorable than a year ago. In the first quarter of 1982, expected changes in business conditions were favorable by only a small margin of opinion (34 percent better versus 26 percent worse), compared with the two-to-one favorable margin of opinion recorded one year earlier (37 versus 18 percent). When respondents were asked why business conditions would improve or worsen, favorable references to government economic policies declined significantly during the past year. The proportion of respondents that made favorable references to government economic policies fell to 17 percent in 1982, from 33 percent in the first quarter 1981 surveys, while unfavorable references to government economic policies rose from 8 to 12 percent.

Overall confidence in government economic policies to reduce inflation and unemployment declined in the first quarter 1982 surveys and stood at its lowest level since President Reagan entered office. Among all families, 29 percent thought the government was doing a poor job, compared with 23 percent that thought the government was doing a good job. Confidence in government economic policies among families with incomes over $20,000 declined by a smaller amount, and more high-income families still rated government economic policy as good rather than poor (30 versus 24 percent in the first quarter 1982 surveys).

Although business conditions were expected to improve on balance, few respondents expected the return of good financial times in the economy as a whole. Two-in-three respondents expected bad times financially during the next 12 months – a bleaker outlook has been recorded only at the recession lowpoints of 1974-75 and 1980. Long-term business expectations also were less favorable at the start of 1982 than one year earlier, but the decline was not as steep. The proportion that expected good times financially in the economy as a whole during the next five years fell from 28 to 25 percent. Bad financial times over the longer term were expected by 60 percent of all families in the first quarter of 1982, up from 53 percent one year earlier.

Personal Finances: Lower Prices and Lower Incomes

Lower rates of inflation have improved the financial situation of American families during the past year, but this improvement has been partially offset by income declines due to rising unemployment. Thus far the overall improvement in the financial situation of consumers has been small – more families in the first quarter 1982 surveys still reported that they were worse off rather than better off financially (40 versus 31 percent). When asked to explain how their financial situation had improved or worsened, the proportion of families that singled out inflation fell from 44 to 31 percent from the first quarter of 1981 to the first quarter of 1982. Offsetting this favorable trend, reports of declines in family income were the highest recorded in more than a decade (21 percent).

Reports of financial progress were more frequent among families with incomes of $20,000 or more during the past year. More high-income families reported that their financial situation had improved rather than worsened by early 1982 (38 versus 34 percent), in contrast to one year earlier when reports of financial declines were more frequent (34 versus 41 percent).

Although consumers' evaluations of their current financial situation are still on balance unfavorable, improvement rather than further deterioration was expected over the near and longer terms. Among all families, 30 percent expected to be better off financially in the year ahead, compared with 19 percent that expected a worsening financial situation. Declines in inflation coupled with the maintenance of favorable nominal income expectations, due in part to the prospective tax cuts, have led to more favorable real income expectations.

Improvements in personal finances were expected over the longer term as well as the short term. Among all families, 48 percent reported that they expected to be better off financially in five years, compared with 16 percent that thought their financial situation would worsen over the next five years. During the past two years, the proportion of families that expected long-term improvement in their financial situation increased from 39 percent in 1980 to 48 percent in 1982, while the proportion that expected a worsening financial situation declined from 26 to 16 percent. As with the improvement in short-term expectations, declines in expected inflation rates were primarily responsible for these improvements.

Although declines in inflation coupled with the prospective tax cuts have led to more favorable expectations, these improvements still leave consumers short of renewed confidence in their financial situation: most consumers remain cautious and are not yet willing to incur new debt or use accumulated savings to make large purchases. In the first quarter 1982 surveys, 70 percent of all consumers reported that they were reluctant to draw on accumulated savings, up from 54 percent two years earlier. Just 27 percent of all families reported that they were not reluctant to use accumulated savings for major purchases, down from 38 percent two years earlier. When asked about their readiness to use credit to finance new purchases, just 13 percent of all families in the second quarter 1982 surveys reported that they were not reluctant to incur new debt. Overall, consumers expressed greater reluctance to draw on savings or incur new debt to finance purchases in early 1982 than during the prior two years. When respondents were asked about their reasons for saving, the most frequent response given in early 1982 was to provide reserve funds in case of emergencies and for security against economic setbacks (40 percent).

High Interest Rates Offset Appeal of Low Prices

Although slight improvement in attitudes toward market conditions was recorded in the first quarter 1982 surveys, on balance these levels nearly equal the unfavorable levels recorded a year earlier. Despite the lack of any overall change in buying attitudes, the reasons for these opinions have changed significantly during the past year. In the first quarter 1982 surveys, the proportion of respondents that mentioned low prices for large household goods rose from 23 percent one year earlier to 31 percent, higher than at any time in the past two decades. The same pattern was seen in evaluations of market conditions for vehicles. One-third of all respondents in the first quarter of 1982 mentioned low prices for automobiles, up from 23 percent one year ago; this 33 percent reading was the highest since February 1975 – when rebates were introduced. Correspondingly, buy-in-advance price rationales have weakened in all three markets during the past year.

Despite the increasing mentions of low prices, overall improvement in buying attitudes has been blocked by continued concern about high prices and high interest rates. Over the past year, references to high prices have remained frequent for vehicles (32 percent in early 1982 versus 33 percent one year ago) and durables (20 percent versus 21 percent). Only housing has shown a softening in concern about high prices (26 percent versus 32 percent).

In the first quarter 1982 surveys, three-fourth of all respondents mentioned high interest rates and tight credit conditions with regard to the housing market, a small decline from the all-time record high level of 81 percent recorded in fourth quarter 1981. Unfavorable references to high interest rates for the automobile market were made by 28 percent of all respondents, up from the 25 percent recorded in first quarter 1981 and essentially unchanged from the 27 percent recorded during the last six months of 1981. Twenty percent of all respondents said interest rates were high for large household goods, down from the 24 percent recorded one year ago, but also unchanged from the last six months of 1981.

High Interest Rates Cause Postponement of Purchases

One-third of all American households reported they had postponed purchases because of high interest rates in late 1981 and early 1982. Compared with late 1981, slightly fewer families reported that they had postponed purchases of vehicles and housing, while reports of postponed purchases of household durables and other goods have increased.

Families that postponed purchases were asked what interest rate would have been charged if they had made the purchase (see the table). The median overall response was 17.7% in the first quarter 1982 surveys. The interest rate level which prompted postponement was lowest when the purchase postponed was a house (17.2%) and highest for postponed purchases of household durables (18.1%). These figures closely approximate the actual interest rates at the time of the surveys and indicate that consumers have a well-founded awareness of interest rates.

The highest interest rate that these families were willing to pay to make the credit purchases they had postponed was 12.0%, on average, in early 1982. The gap between the interest rate which would have been charged and the interest rate people were willing to pay was 5.1%. Although the 5 percentage point gap is relatively large, the evidence suggests that interest rate declines of 2 to 3 percentage points would have a significant impact.

TABLE: Interest Rate Effect on Consumer Purchases During the Last Six Months

	1981:4	1982:1			
	All Items	All Items	Vehicles	Housing	Household Durables
Proportion postponing purchase	34%	33%	11%	11%	10%
Interest rate that would have been charged on postponed purchase*	17.5%	17.7%	17.6%	17.2%	18.1%
Highest interest rate willing to pay to make purchases*	11.9	12.0	12.0	12.0	12.3
Difference between interest rate charged and that willing to pay*	4.7	5.1	4.9	4.9	5.5

*Median values for families who postponed a purchase.

The questions asked were "Have interest rates caused you to postpone making any purchases during the last six months? What was postponed? What interest rate would have been charged on any money borrowed for (item)? What is the highest interest rate at which you would have purchased (item)?"

Summary Outlook

Economic recoveries during the past several decades have been paced by rapid growth in sales of consumer durables, vehicles, and houses. These consumer-led recoveries, to an increasing extent, depended on the availability and widespread use of borrowed funds. The early 1982 surveys give no indication that sales of houses, vehicles, and large household durables will begin to post sustained and cumulative increases by the fall of 1982. Consumers remain unwilling to incur new debt or to draw on past savings to make major purchases.

To the extent that relatively high interest rates characterize the next few years, greater reluctance among consumers to incur new debt will slow the overall pace of the recovery. Currently one-third of all households report that they have postponed purchases due to high interest rates. Interest rates are likely to remain higher during the upcoming recovery than during past recovery periods, due to higher budget deficits and higher costs of funds (resulting from changes in regulations governing financial products and services available to consumers).

April 1982

Where the Shoe Pinches: The 1983 Reagan Budget

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Conventional political wisdom in the United States has held for some time that the national government budget is too complex to understand and too large to control. In 1981, however, a newly-elected president clearly demonstrated an ability not only to understand but also to reshape federal spending and taxing priorities. Through recisions President Reagan removed some $17.8 billion in authorized expenditures and loans from President Carter's 1981 budget, and he amended Carter's proposed 1982 budget to eliminate another $64 billion in requested spending authority, largely from social service programs. A $28.2 billion increase in authorized defense expenditures for 1981 and 1982 produced a net reduction overall of $53.6 billion, one of the largest budget cuts in recent history. Our earlier analysis of the impact of these expenditure reductions revealed that the largest cuts would be experienced by the older industrial states of the Northeast and Midwest, whose increasingly dependent populations would suffer losses in social service benefits much larger than the modest defense expenditure increments likely to flow into those states.[1] Since these states were also among the most fiscally hard-pressed, it was clear that President Reagan's first efforts at national budgeting had reshaped budget priorities effectively, but in a fashion that would impose considerable pain on many state and local governmental jurisdictions, as well as on the low-income groups located in those jurisdictions.

In this analysis we examine the fiscal impact of the 1983 budget, the first to be completely developed by the Reagan administration. Although it seems clear that the budget as proposed has little chance of enactment, it remains a vivid statement of presidential priorities. As before, President Reagan proposes a very substantial increase in budget authority for defense purposes – from $220 billion in fiscal 1982 to $265 billion in fiscal 1983, an increment of more than $45 billion in a single year. He also proposes to continue to shrink various social service and income security programs: training and employment, reduced by $5 billion in 1982, is cut another $800 million in 1983; food and nutrition assistance, lowered by $790 million in 1982, is cut another $2.9 billion in 1983; housing assistance programs, reduced by $19.6 billion in 1982, are reduced another $5.2 billion in 1983, and so on. In the fiscal 1983 budget, however, the president expands the budget target considerably, proposing large reductions in community and regional development programs (down 13.3 percent from 1981 levels), energy programs (down 32 percent), and transportation (down 15 percent). Quite apart from the well-publicized "New Federalism" initiatives, therefore, the 1983 Reagan budget proposes further reductions in federal spending that are both large and more comprehensive in focus than those in the current budget.

On the other hand, the president also proposes to increase federal spending quite considerably in functions other than national defense. Veterans benefits increase by nearly 34 percent over 1981 levels, health increases by some 13 percent, and interest payments on the national debt grow by a whopping 39.8 percent. The president has proposed substantial program reductions, to be sure, but he has done so selectively, and he has been equally selective in suggesting program increases that bring the total budget proposed for 1983 to some $952.6 billion, some 16.9 percent higher than 1981 spending.

The effect, as Table 1 suggests, is not so much to cut the federal budget as to redistribute budget shares among functions. Defense spending rises from 22.9 percent of the total budget in 1981 to 27.9 percent in 1983. Despite an increase in dollar resources of more than $5 billion for income security between 1981 and 1983, the programs included under income security drop from 28.8 percent to 25.2 percent of the overall budget. Education, training, employment, and social services programs actually lose funds between 1981 and 1983 and thus drop from 4.1 to only 2.7 percent of the budget. Interest on the national debt rises both absolutely and relatively, to some 14.2 percent of the budget. The essence of the 1983 budget, therefore, is selectivity in both reductions and increments. Resources increase over all, but budget shares are rearranged in keeping with President Reagan's expressed priorities for more defense and less social assistance.

How are these changes likely to impact on the fifty states? In order to provide a realistic answer to this question we focus our attention on total "budget resources" rather than the more restrictive concept of "outlays." That is, we attempt to determine the overall level of federally-supported benefits made available to governments and individuals within state jurisdictions. For this purpose we utilize "budget authority" rather than "outlays" numbers, since it is authorization to spend that defines availability rather than estimates of actual spending. We also include the value of loans made or guaranteed by various federal agencies, again because such activities have important economic consequences for states that are not captured at all by the concept of "outlays." In most cases "budget authority," "appropriations," and "outlays" are similar: the major exceptions are capital construction or procurement activities in which "outlays" proceed at very different levels from what might be suggested by either "authority" or "appropriation." Including loans and loan guarantees within the concept of "budget resources," however, makes a very large difference. For example, the Loan Guarantee Revolving Fund-which finances the GI Home Loan Program has no new budget authority at all for the 1981-1983 period, yet disbursements for direct loans from this fund

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[1] "An Estimate of the Geographic Impact of President Reagan's Budget Proposals," Intergovernmental Fiscal Analysis Project Staff (Ann Arbor: Center for Political Studies, The University of Michigan, April 1981).

TABLE 1: Estimated Budget Resources for the United States

FUNCTION	FISCAL YEAR 1981 DOLLAR AMOUNT (MILLIONS)	FISCAL YEAR 1981 PERCENT SHARE OF BUDGET	FISCAL YEAR 1982 DOLLAR AMOUNT (MILLIONS)	FISCAL YEAR 1982 PERCENT SHARE OF BUDGET	FISCAL YEAR 1983 DOLLAR AMOUNT (MILLIONS)	FISCAL YEAR 1983 PERCENT SHARE OF BUDGET	PERCENT CHANGE FY81 TO FY83 DOLLAR AMOUNT	PERCENT CHANGE FY81 TO FY83 SHARE OF BUDGET
50 NATIONAL DEFENSE	186792	22.9	220396	24.9	265664	27.9	42.2	5.0
150 INTERNATIONAL AFFAIRS	8409	1.0	9141	1.0	9494	1.0	12.9	-.0
250 GENERAL SCIENCE, SPACE, AND TECHNOLOGY	7063	.9	7473	.8	8292	.9	17.4	.0
270 ENERGY	15259	1.9	14957	1.7	10362	1.1	-32.1	-.8
300 NATURAL RESOURCES AND ENVIRONMENT	12087	1.5	11997	1.4	11559	1.2	-4.4	-.3
350 AGRICULTURE	15654	1.9	14833	1.7	12925	1.4	-17.4	-.6
370 COMMERCE AND HOUSING CREDIT	50436	6.2	57108	6.4	61484	6.5	21.9	.3
400 TRANSPORTATION	22343	2.7	19825	2.2	18901	2.0	-15.4	-.8
450 COMMUNITY AND REGIONAL DEVELOPMENT	10800	1.3	10313	1.2	9364	1.0	-13.3	-.3
500 EDUCATION, TRAINING, EMPLOYMENT, SOCIAL	33150	4.1	28315	3.2	25582	2.7	-22.8	-1.4
550 HEALTH	71336	8.8	81754	9.2	80654	8.5	13.1	-.3
600 INCOME SECURITY	234342	28.8	233237	26.3	239861	25.2	2.4	-3.6
700 VETERANS BENEFITS AND SVCS	34437	4.2	42994	4.8	46092	4.8	33.8	.6
750 ADMINISTRATION OF JUSTICE	2676	.3	2741	.3	2876	.3	7.5	-.0
800 GENERAL GOVERNMENT	8423	1.0	9195	1.0	9924	1.0	17.8	.0
850 GENERAL PURPOSE FISCAL ASSISTANCE	5145	.6	5123	.6	4771	.5	-7.3	-.1
900 INTEREST	96465	11.8	117412	13.2	134837	14.2	39.8	2.3
999 TOTALS	814819	100.0	886813	100.0	952641	100.0	16.9	0.

increase from $280 to $336 million and new loans guaranteed jump from $10.3 to $19.3 *billion* during this same period. We think it is obvious that important economic consequences flow from distribution of these kinds of federal benefits; thus we include them as "budget resources."

Once again we estimate state receipts of these federal resources on the basis of past state receipts of the same benefits. Using data now available from federal *Geographic Distribution of Federal Funds* reports, we have calculated each state's share of federal spending for some 500 separate programs in 1978, 1979 and 1980. Calculating a state's average annual program share for this three-year period produces a ratio that can then be applied against actual or proposed national spending to yield an estimate of each state's program receipts in 1981, 1982, and 1983. These sums can then be aggregated to report subfunction or function totals, agency and program totals, per capita sums by program, agency, or region, and so on. All national figures for actual 1981, estimated 1982, and proposed 1983 federal budget activity were taken directly from the *Appendix* to the 1983 *Budget of the U.S. Government* and include supplementals and recisions proposed in that document.

Economic Pain, Capacity to Cope, and the 1983 Budget

During the 1980 presidential campaign, candidate Ronald Reagan asked the electorate to consider whether "you are better off today than you were a year ago." The rhetorical question was widely regarded as an effective campaign device, since it focused attention on individual economic distress and increased voter receptivity to candiate Reagan's plan for revitalizing a declining economy. A year into the new program, with another round of budget changes before the Congress, it seems appropriate to repeat the question, adding a further inquiry into the relationship between economic distress and President Reagan's 1983 budget proposals. To measure economic distress we have chosen two easy and widely available indicators: the percent of each state's population that is unemployed and the percent of each state's population receiving Aid to Families with Dependent Children (AFDC) benefits, commonly regarded as "welfare." To eliminate possible duplication, we have removed from the AFDC population those families receiving AFDC-PU, that due to parental unemployment. Dividing each state's proportion of unemployed persons and welfare recipients by the proportion of the national population that is unemployed and on welfare, respectively, produces measures of each state's economic distress relative to all other states. To produce a "Pain Index," we simply take the average of these two measures for each state.

Using this Pain Index we have grouped the states into quintiles and reported mean per capita budget resources (minus interest)[2] for each state for fiscal 1981, 1982, and

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[2] We remove interest payments from these calculations because such payments are known to be inaccurately allocated among the states.

1983. For each grouping of states we also report two measures that indicate state ability to "cope" with federal budget changes: tax capacity and tax effort. Roughly, capacity measures each state's taxable wealth, while effort measures the extent to which a state extracts portions of its wealth for public purposes. All of these measures are reported in Table 2, from which several clear conclusions emerge.

First, it is evident that economic pain is distributed quite unevenly among the states: by this measure the ten worst-off states experience nearly twice the distress of the ten least-pained states, and gaps between the several state groupings are large. Second, it is apparent that states with low levels of distress are also states with high tax capacity and low tax effort. States with high levels of distress not only have less tax capacity, but their effort to use existing tax capacity is much greater than average, suggesting that many of these states may have come close to the limit of what existing financial arrangements can support. The most distressed states suffer much higher than average pain, much lower than average capacity to generate taxes, and much higher than average effort to raise tax revenues. From a fiscal capacity point of view, they are the basket cases of American federalism.

They are also the poor relations of federal budget allocations. Budget resources made available to the most distressed states in 1981, 1982, and 1983 are consistently lower than resources allocated to or proposed for states that are least hard-pressed. Indeed, per capita budget resources for states suffering the greatest pain are consistently $700 to $800 *less than* resources available to states in the better-off groupings. Instead of alleviating economic pain in the states, the policies embedded in the 1983 budget would be likely to exacerbate existing economic disparities, including the difficulties measured by our Pain Index.

In addition to providing fewer resources to states that suffer most, the 1983 budget removes resources in disproportionate amounts from these same states. While resources increase in general, we have shown that the budget proposes major reductions in programs designed to assist the poor or the unemployed. States with large numbers of welfare recipients or unemployed workers thus would experience larger reductions in federal assistance than states with fewer people in such groups. Table 3 documents this conclusion by showing per capita reductions in the six budget "sub-functions" that are most directly related to problems of poverty or unemployment: elementary, secondary, and vocational education (501); training and employment (504); social services (506); unemployment compensation (603); food and nutrition assistance (605); and other income security activities (609). Substantial per capita losses are anticipated for all states, but the largest losses implied by the 1983 budget would occur in the most distressed states. Since stimulus expected from increases in defense spending may not affect those who are currently unemployed, at least in the short run, these losses in social service and unemployment training funds would certainly intensify the pain already felt by these population groups. The funding losses would also exacerbate governmental fiscal stress, particularly since dollars from these programs constitute a much larger fraction of total federal resources in more distressed states than in better off states.

The Regional Distribution of Budgetary Pain

The states with the highest economic distress, when measured by our Pain Index, are quite concentrated geographically. States of America's industrial heartland, from Massachusetts to Wisconsin, clearly are suffering greater pain than states in other parts of the country. In our previous analysis we referred to these same states as the American Ruhr and pointed out that, by a variety of measures, rates of economic growth in this area had been quite low during the mid-1970s. Applying our Pain Index

TABLE 2: Estimates of Budget Spending Grouped by Index of Pain[1]

Quintile*	Pain Index	Tax Capacity**	Tax Effort**	Total Budget Resources (Minus Interest) Per Capita Dollars FY 81	FY 82	FY 83	Difference (FY 81-FY 83)
Low Pain 1	62	110	85	3500	3727	3891	391
2	77	107	90	3420	3685	3872	452
3	94	94	95	3557	3835	4084	527
4	105	94	99	3011	3199	3368	357
High Pain 5	121	94	112	2785	2925	3094	309

*Quintiles are composed as follows:

1 - Arizona, Kansas, Nebraska, New Hampshire, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming
2 - Colorado, Florida, Idaho, Iowa, Minnesota, Montana, Nevada, North Carolina, Virginia
3 - Arkansas, Connecticut, Georgia, Hawaii, Missouri, New Mexico, Tennessee, Vermont, Washington, West Virginia
4 - Alabama, California, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Oregon, South Carolina, Wisconsin
5 - Delaware, Illinois, Maine, Michigan, Mississippi, New Jersey, New York, Ohio, Pennsylvania, Rhode Island

[1] Alaska, which would have been included in the high pain quintile because of a high state unemployment rate, has been omitted from the index because its small population (400,000 total) would have severely distorted the average values, and because by other indicators (per capita income, tax capacity, tax effort) Alaska would fall among the most well-off states. If Alaska is included in the fifth quintile, then averages are as follows: pain=121, tax capacity=105, tax effort=113, budget resources for FY81=3180, FY82=3326, FY83=3514, and budget resource difference=334.

**SOURCE: Advisory Commission on Intergovernmental Relations calculations taken from National Journal, November 14, 1981.

TABLE 3: Estimates of Social Service Spending Grouped by Index of Pain[1]

Quintile*	Pain Index	Tax Capacity	Tax Effort	Welfare Subfunctions				
				Per Capita Dollars				Percent Concentration FY83
				FY 81	FY 82	FY 83	Difference FY81-FY83	
Low Pain 1	61.	110.	85.	183	150.	134	-49	10
2	76.	107.	90.	199	162.	146.	-53	13
3	93.	94.	95.	255.	211.	193.	-62	14
4	104.	94.	99.	240.	198	185.	-56	29
High Pain 5	121.	94.	112.	254.	204	189.	-65	35

*Quintiles are composed as follows:

1 - Arizona, Kansas, Nebraska, New Hampshire, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming
2 - Colorado, Florida, Idaho, Iowa, Minnesota, Montana, Nevada, North Carolina, Virginia
3 - Arkansas, Connecticut, Georgia, Hawaii, Missouri, New Mexico, Tennessee, Vermont, Washington, West Virginia
4 - Alabama, California, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Oregon, South Carolina, Wisconsin
5 - Delaware, Illinois, Maine, Michigan, Mississippi, New jersey, New York, Ohio, Pennsylvania, Rhode Island

[1] See note 1 in Table Two

to these states makes clear that their distress is real and in some cases extraordinary. Table 4 provides Pain Index scores for states in each of the nine divisions used by the Census Bureau to group state-level statistics.

The five Great Lakes states that make up the East North Central division are some distance ahead of all other states in distress and, together with the three Mid-Atlantic states, comprise a tightly packed area of economic pain. Michigan, with a Pain Index of 163, is far and away the most distressed state in the nation, but Illinois (125), New York (120), New Jersey (121), Ohio (110), and Pennsylvania (110) approach Michigan's level of distress. Among the other states only Maine (111), Delaware (119), Mississippi (125) and Rhode Island (116) record scores similar to the

TABLE 4: Estimates of Budget Resources by Census Division

Census Divisions*	Pain Index	Per Capita Dollars				
		Total Budget (Minus Interest) FY 1983	Change in Total Budget FY 81 to FY 83	National Defense FY 1983	Change in National Defense FY 81 to FY 83	National Defense Change as Percent of Total Change
New England	102.	4241	677	1919	657	97
Mid Atlantic	117.	3223	327	805	264	81
East North Central	124.	2516	236	515	160	68
West North Central	80.	3681	439	1118	354	81
South Atlantic	85.	3822	485	1361	354	73
East South Central	106.	3257	288	877	238	83
West South Central	72.	3585	425	1295	371	87
Mountain	73.	4362	586	1359	360	61
Pacific	105.	4558	785	1991	592	75

*Census divisions include the following states:

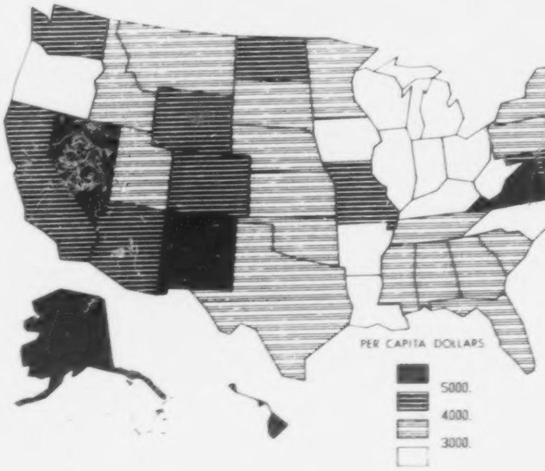
1 New England - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
2 Mid Atlantic - New Jersey, New York, Pennsylvania
3 East North Central - Illinois, Indiana, Michigan, Ohio, Wisconsin
4 West North Central - Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
5 South Atlantic - Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
6 East South Central - Alabama, Kentucky, Mississippi, Tennessee
7 West South Central - Arkansas, Louisiana, Oklahoma, Texas
8 Mountain - Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
9 Pacific - Alaska, California, Hawaii, Oregon, Washington

states of the Mid-Atlantic and East North Central divisions. Except for Mississippi, all of these additional high-distress states border another high distress state.

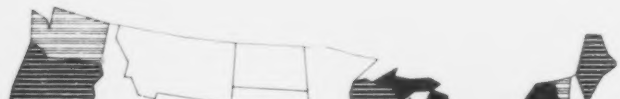
Table 4 also shows total budget resources proposed for each division in the 1983 budget, defense spending proposed for each division for 1983, and changes between 1981 and 1983, expressed in per capita terms. Per capita resources made available to the severely distressed Great Lakes states in 1983 are more than $2,000 less than spending proposed for the states of the Pacific division. Budget resources allocated to the Mid-Atlantic states are somewhat higher, but still lower than 1983 recommendations for the Pacific, Mountain, or New England states by more than $1,000 per person. Moreover, per capita increases in federal spending proposed for these most distressed states turn out to be no more than one-third to one-half the increments proposed for states in other divisions. Indeed, the $236 per capita increase in total 1983 resources proposed for the Great Lakes states is barely 30 percent of the increase allocated to the Pacific states, while the defense increment of $160 per capita in the Great Lakes division is not even one-quarter of the defense increment proposed for the New England states. New England, of course, gains virtually all of its resource increment (97%) from defense increases, largely because of shipbuilding proposed for Connecticut and Maine. Apart from that gain, New England would appear very similar to the increasingly disadvantaged Midwestern and Mid-Atlantic states.

The disadvantaged middle can be seen more dramatically in Maps 1 and 2, which portray Pain Index scores by state and 1983 budget resources proposed for each state. Deep economic distress clearly has infected the old industrial heartland of the United States. But, as Map 2 shows, the President's 1983 budget exacerbates rather than alleviates this distress. Budget increments are lower in the Mid-Atlantic and Midwestern areas than elsewhere, primarily because defense increments are so much lower in those regions than elsewhere (recall Table 4). Rejuvenation of the private sector presumably is the only hope held out for these distressed areas by the 1983 budget. Yet, when employment and per capita income rates of change between 1976 and 1980 are combined to form a Growth Index for the states, hope for private sector rescue fades away. As Map 3 suggests, states that record high scores on our index of economic pain do so in part because they are also states which have experienced rather low rates of economic growth during the past half decade. With few exceptions, high growth states are located either in the West or the South. Midwestern and Mid-Atlantic states consistently show growth rates for the 1976-1980 period that are among the lowest in the nation. Short of a major and far-reaching economic reversal, the private sector seems unlikely to carry the burden imposed on it by the 1983 Reagan budget.

MAP 2: Per Capita Budget Resource Spending: Fiscal Year 1983



MAP 1: Unemployment and Welfare Pain Index



NOTE A Score of 100 corresponds to the national mean

MAP 3: Employment and Per Capita Income Growth Index

SCORES
115.
100.
85.

NOTE A Score of 100 corresponds to the national mean

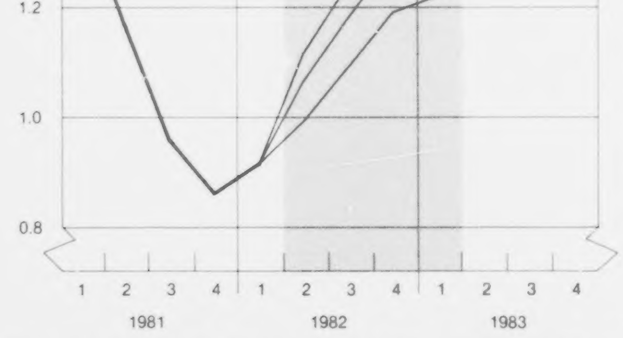
Regional and Economic Equity in Federal Budget Policy

President Reagan's success in achieving a massive tax reduction, while achieving no more than a reduced rate of expenditure growth, has led to forecasts of annual budget deficits amounting to $150 billion or more beginning in 1983. Widespread political opposition to budget deficits of this size has effectively eliminated any hope that the president's budget will be approved by the Congress. Nonetheless, the proposed budget remains the starting point for negotiations that are now under way and likely to continue for some months. It is therefore important to recognize the two issues of federal budget policy that are thrown up most clearly by the president's proposals: economic and regional equity.

The issue of economic equity arises most forcefully from the absence of any budgetary effort to confront the pain experienced by increasing numbers of citizens who are forced into unemployment and often forced to apply for welfare. Substantial reductions in benefits targeted toward these groups are proposed at the same time that large tax savings are proposed for upper income groups and large corporations. In addition, the president proposes to divest the federal government of responsibility for assistance programs such as AFDC or Food Stamps, at a time when high economic distress and limited resources render it unlikely that states could or would assume full responsibility for such programs. A fifty year trend toward greater equalization of public benefits among the states would be reversed if these proposals came to fruition, leading to greater inequities among states as well as increased economic inequities among individual citizens. As the budget continues to be debated, it will be important to clarify the appropriate role of the federal government in dealing with inequities among individuals and among states.

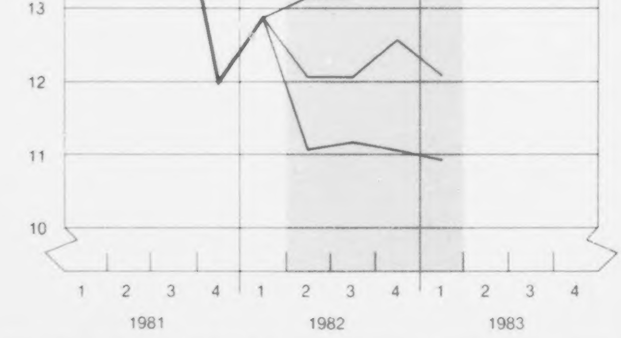
Regional inequity emerges as a clear issue in the 1983 budget largely because the states of the Mid-Atlantic and East North Central divisions would simultaneously experience the most severe reductions in social program expenditures and the smallest increments in resource allocations for defense purposes. Such treatment might be justified if these states were already recipients of unusually large amounts of federal largesse. On a per capita basis, however, these states receive fewer federal resource dollars than any other group of states, despite the large amounts of tax dollars they continue to contribute to the federal treasury. There is no evidence we know of to suggest that the Reagan administration consciously attempted to disadvantage these states in preparing the 1983 budget. On the other hand, it seems clear that little or no attention was paid to the regional consequences of policy decisions to reduce entitlement and social service programs while increasing defense spending. Some states outside the Mid-Atlantic and East North Central areas are also disadvantaged by these choices—Mississippi, Arkansas, and Oregon, for example—but nowhere else are there large groupings of contiguous states that are so consistently and seriously disadvantaged by the 1983 budget. Whether or not it is appropriate to disregard the varied regional impacts of federal spending policies is an issue raised very clearly by Reagan administration economic policy.

NEW PRIVATE HOUSING UNITS STARTED



Note: Actual data are from U.S. Department of Commerce; projected data are from ASA-NBER Panel of Forecasters, revised when necessary to be consistent with latest actual data. The 3 lines display 3rd, 2nd (median), and 1st quartile values from the array of forecasts.

90-DAY TREASURY BILL RATE



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Actual and Projected Economic Indicators

seasonally adjusted

SERIES FORECAST BY THE ASA-NBER PANEL

ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	Actual							Projected					Act'l.	Projected	
	1980:3	1980:4	1981:1	1981:2	1981:3	1981:4	1982:1	1982:1	1982:2	1982:3	1982:4	1983:1	1981	1982	1983
GROSS NATIONAL PRODUCT	2,637	2,731	2,853	2,886	2,965	2,998	2,995	3,017	3,084	3,170	3,267	3,349	2,926	3,136	3,464
GNP IMPLICIT PRICE DEFLATOR (index, 1972 = 100)	179.2	183.8	188.1	191.1	195.6	200.1	201.9	203.0	206.1	209.8	213.8	217.5	193.7	208.0	223.0
CORPORATE PROFITS AFTER TAXES	159.1	164.3	169.2	152.7	156.3	144.0	NA	133.0	139.0	146.0	156.0	161.5	155.6	143.5	164.5
UNEMPLOYMENT RATE (percent)	7.667	7.433	7.367	7.400	7.367	8.367	8.767	8.900	9.150	9.000	8.800	8.500	7.625	9.000	8.200
INDUSTRIAL PRODUCTION (index, 1967 = 100)	142.3	148.7	151.8	152.5	153.0	146.3	141.4	142.0	145.0	148.0	151.1	153.0	150.9	147.0	155.5
NEW PRIVATE HOUSING UNITS STARTED (millions)	1.385	1.500	1.399	1.173	0.962	0.865	0.919	0.923	1.075	1.190	1.300	1.350	1.100	1.110	1.500
CONSUMER PRICE INDEX (% change from prior quarter or year)	7.6	12.8	11.0	7.8	11.8	7.8	3.2	6.0	6.3	6.8	7.0	7.0	10.3	7.0	6.9
90-DAY TREASURY BILL RATE (%)	9.24	13.71	14.37	14.83	15.09	12.02	12.90	12.80	12.00	12.00	12.50	12.03	14.08	12.10	11.80
NEW HIGH-GRADE CORPORATE BOND YIELD (percent)	12.18	13.88	14.37	15.22	16.33	16.01	NA	15.60	15.20	15.00	15.00	14.50	15.48	15.10	14.10
GNP IN 1972 DOLLARS	1.472	1,486	1,516	1,510	1,516	1,498	1,484	1,485	1,494	1,510	1,528	1,538	1,510	1,504	1,556
PERSONAL CONSUMPTION EXPENDITURES (1972 $)	930.8	946.8	960.2	955.1	962.8	957.5	966.8	963.0	968.5	977.0	986.5	994.8	958.9	973.5	1,006
NONRESIDENTIAL FIXED INVESTMENT (1972 $)	155.5	157.0	162.0	161.1	163.9	162.7	162.4	157.0	155.0	156.0	157.0	160.0	162.4	156.0	163.0
RESIDENTIAL FIXED INVESTMENT (1972 $)	44.7	50.6	51.0	47.8	42.7	39.4	38.3	38.9	40.4	43.0	45.9	46.7	45.2	42.0	51.0
CHANGE IN BUSINESS INVENTORIES (1972 $)	-5.0	-7.2	-1.4	10.8	14.9	4.2	-17.5	-3.7	-0.9	1.9	4.5	5.7	7.1	0.3	7.4
NET EXPORTS (1972 $)	57.6	48.5	50.9	46.2	43.2	39.2	37.8	36.5	36.0	36.0	36.3	37.0	44.9	36.0	36.9
FEDERAL GOVERNMENT PURCHASES (1972 $)	106.9	107.4	111.2	108.7	109.6	116.6	118.3	113.0	113.0	114.0	116.0	116.0	111.5	114.0	117.0
STATE & LOCAL GOVERNMENT PURCHASES (1972 $)	181.3	182.4	182.5	180.7	178.8	178.8	177.5	178.0	178.0	176.0	176.0	176.0	180.2	177.0	176.0

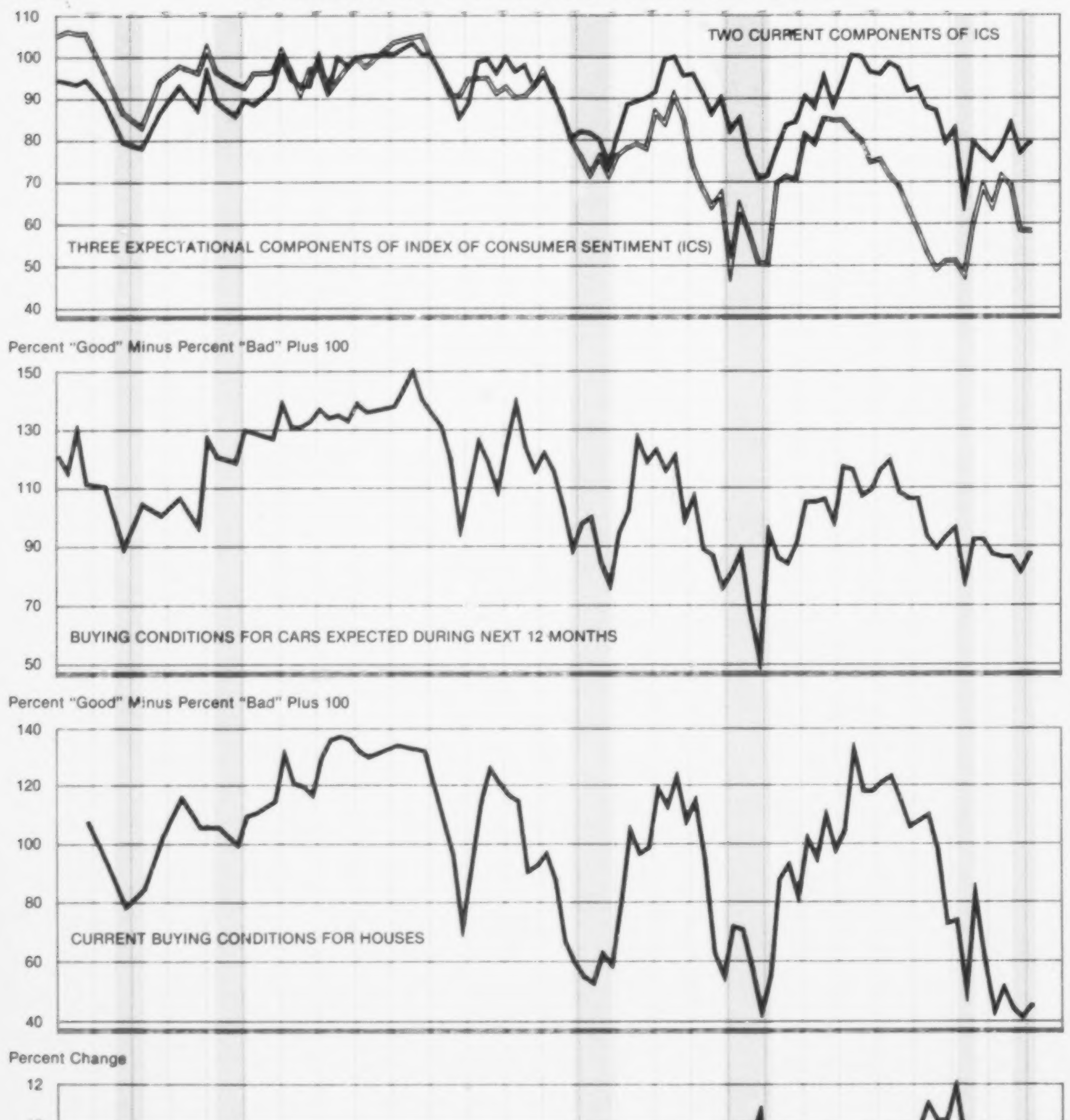
SERIES FROM THE CURRENT-DOLLAR GNP ACCOUNTS

ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	1979:2	1979:3	1979:4	1980:1	1980:2	1980:3	1980:4	1981:1	1981:2	1981:3	1981:4	1982:1	1979	1980	1981
GROSS NATIONAL PRODUCT	2,375	2,444	2,496	2,572	2,565	2,637	2,731	2,853	2,886	2,965	2,998	2,995	2,414	2,626	2,926
PERSONAL CONSUMPTION EXPENDITURES	1,478	1,529	1,582	1,631	1,627	1,682	1,751	1,810	1,829	1,884	1,908	1,951	1,511	1,673	1,858
GROSS PRIVATE DOMESTIC INVESTMENT	423.2	421.7	410.0	415.6	390.9	377.1	397.7	437.1	458.6	463.0	443.3	392.6	415.8	395.3	450.5
NET EXPORTS	8.2	17.9	7.6	8.2	17.1	44.5	23.3	29.2	20.8	29.3	24.7	23.8	13.4	23.3	26.0
GOVERNMENT PURCHASES	465.1	475.4	496.4	516.8	530.0	533.5	558.6	576.5	577.4	588.9	622.0	628.0	473.8	534.7	591.2
DISPOSABLE PERSONAL INCOME	1,613	1,664	1,710	1,765	1,784	1,841	1,897	1,948	1,986	2,042	2,089	2,115	1,642	1,822	2,016
PERSONAL SAVING RATE (% of disposable income)	5.6	5.4	4.7	4.9	6.2	6.1	5.1	4.6	5.4	5.2	6.1	5.3	5.3	5.6	5.3

Note: (1) All data are at annual rates and in billions of current dollars unless otherwise indicated. (2) To facilitate comparison and evaluation of forecasts, both actual data, released in late April, and projected data, released by ASA-NBER in March, are displayed for first quarter 1982.

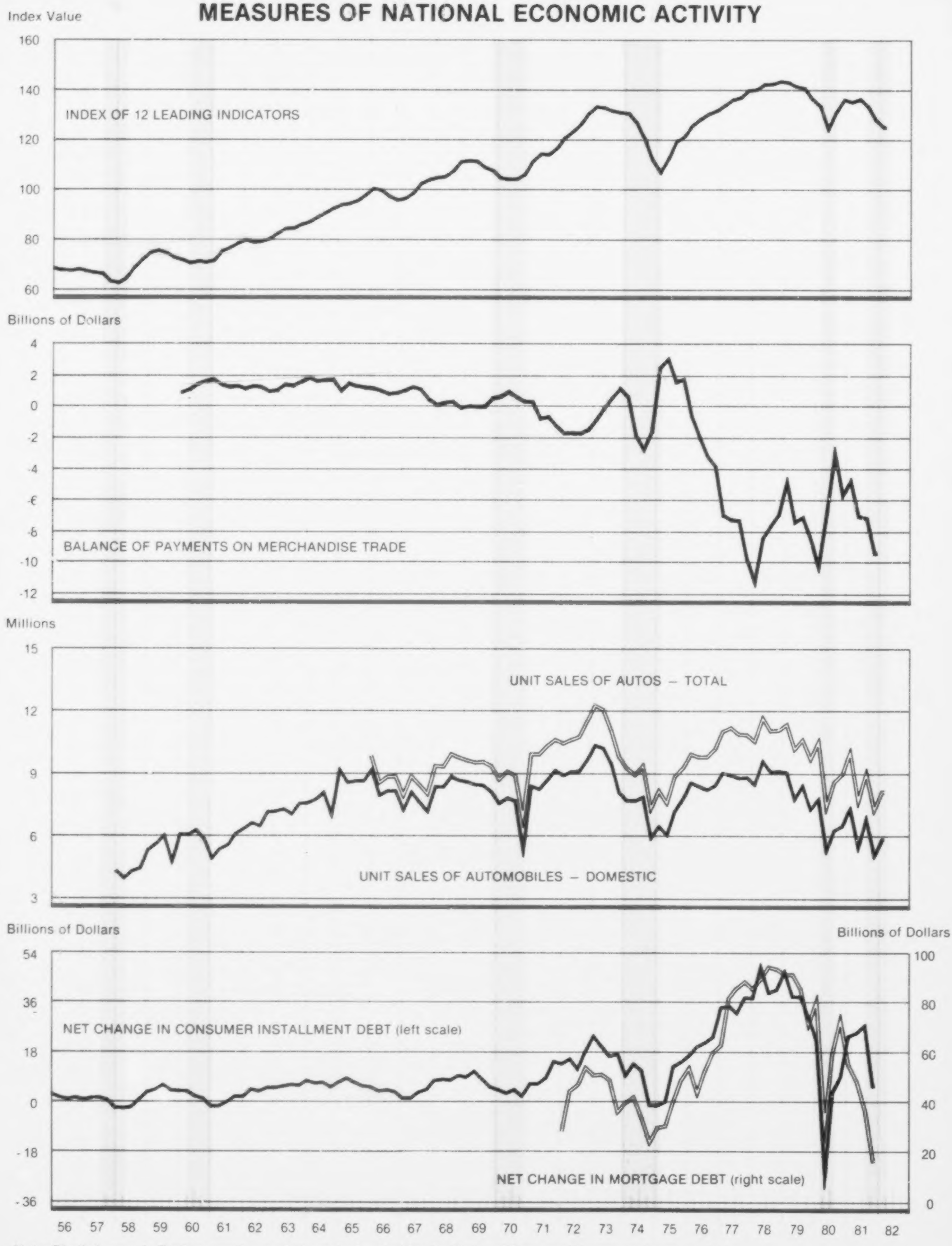
Sources: Projections: American Statistical Association – National Bureau of Economic Research panel of forecasters.
Actual Data: U.S. Departments of Commerce and Labor, Board of Governors of the Federal Reserve System.

SRC MEASURES OF CONSUMER ATTITUDES



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

MEASURES OF NATIONAL ECONOMIC ACTIVITY



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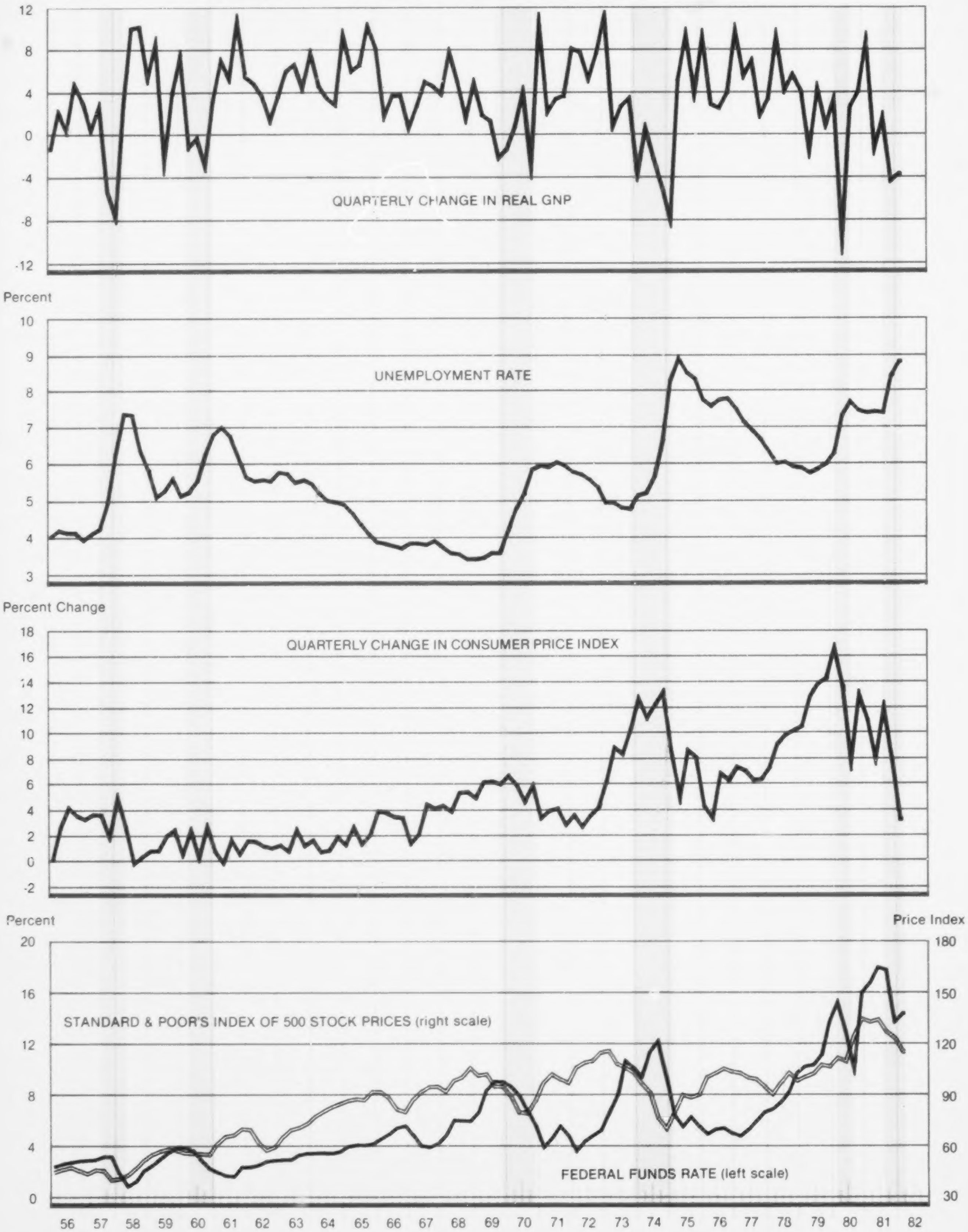
MEASURES OF NATIONAL ECONOMIC ACTIVITY



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Vol. 9 No. 3

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Miller and Wattenberg
Politics from the Pulpit: Religiosity and the 1980 Election
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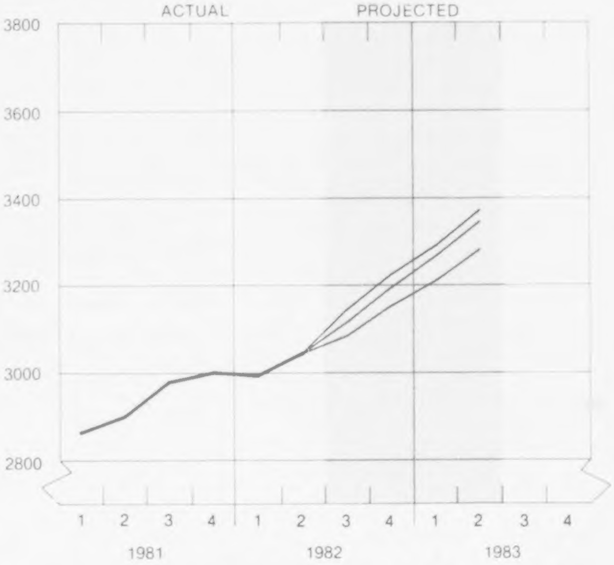
ECONOMIC PROSPECTS: Actual and projected seasonally adjusted quarterly data at annual rates.

GROSS NATIONAL PRODUCT

IN CURRENT DOLLARS
Billions of Dollars



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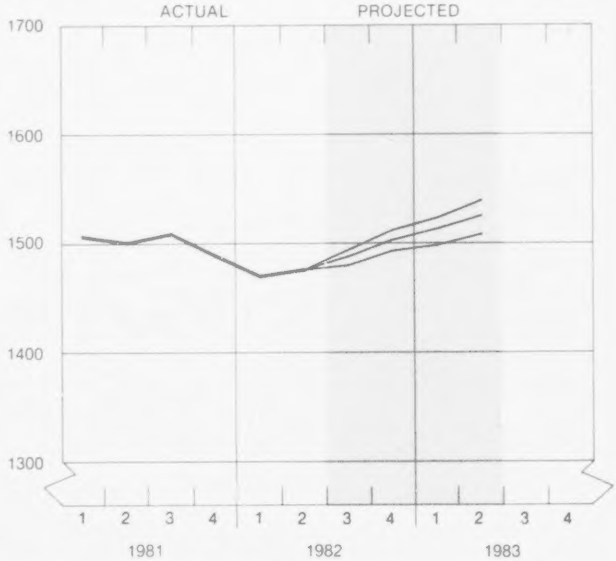
GROSS NATIONAL PRODUCT

IN CONSTANT 1972 DOLLARS
Billions of Dollars



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The Economic Outlook and Economic Policy

Gardner Ackley*
Henry Carter Adams University Professor of Political Economy
The University of Michigan

As 1982 reached its midpoint, most professional economy-watchers thought that they could see recovery underway from the recession that began in the second quarter of 1981. The *recession* is visible in the lines representing "Gross National Product" and "Final Sales" in the top panels of both Charts 1 and 2. The *recovery* was predicted in the first, unofficial, "flash" estimate for second-quarter 1982 GNP; but this is not shown in the figures.[1]

Atypical Aspects of the Current Recession

The recession—if we can indeed speak of it in the past tense—has been unusual in several ways. For one thing, it brought to an end the shortest expansion in modern U.S. business-cycle history: from a low-point ("trough") in the second quarter of 1980, to a high-point ("peak") in the first quarter of 1981. Thus, the recession of *four* quarters just ended (?) was longer than the recovery of *three* quarters that preceded it: an almost unprecedented pattern, at least since the "Great Depression." If expansion is now, in fact, underway, let us fervently hope that it will not turn out to be shorter than the previous recession!

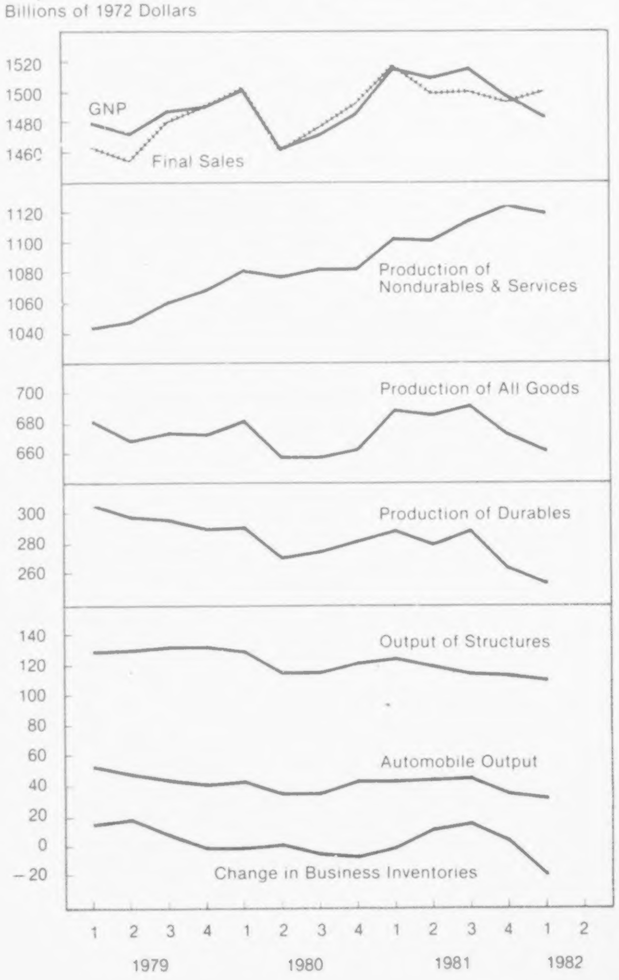
The recent pattern is so unusual that some observers are asking whether a genuine business-cycle expansion really did occur between the second quarter of 1980 and the first quarter of 1981, or whether we may instead have been suffering from one very long recession—with a hump in it—that began in the second quarter of 1980 and has (we hope) ended in the second quarter of 1982. This is an interesting, although partly semantic, question for which there is insufficient space to consider here.

Other observers go even farther, and are tempted to conclude that we may have been observing at least a temporary *demise* of the classical "business cycle"; that it may have been replaced, at least for a time, by largely random fluctuations in production and incomes, perhaps more dominated than is usually the case by the effects of government policies. Without getting into what would have to be a lengthy discourse about what is (or what has been) the "true nature" of "the business cycle" and whether the cycle still exists, it seems appropriate merely to note immediately that many aspects of recent *patterns in the composition of output* are generally familiar to business-cycle analysts, even though the recent episode displays other rather unusual features.

Trends in Output and its Components

Charts 1 and 2 call attention both to some of the standard, familiar, cyclical patterns, as well as to some of the unfamiliar features of recent cyclical history. The top panel of Chart 1 shows "GNP" and "Final Sales" (both in constant 1972 prices). At and just before each of the cycle "peaks" in this period (first quarters of 1980 and of 1981), "final sales"—the demand for total output—just about equaled gross national product—the supply of total output; that is, inventories were essentially stable, neither in-

CHART 1. Gross National Product, by Type of Output; Final Sales; and Change in Inventories



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*Dr. Ackley is currently president of the American Economic Association and is a former chairman of the President's Council of Economic Advisers.

[1] Preliminary national income and product account data released by the Commerce Department in late July confirmed that real GNP increased (by 1.7%) in the second quarter. Revised data also revealed that the decline in total output during 1981:4 and 1982:1 was sharper than previously estimated (−5.3% and −5.1%, respectively).

creasing nor decreasing. (The same phenomenon is shown in the bottom panel of Chart 1, where the *change in inventories* is seen to be close to zero at and just before each of the recent cycle peaks.) At the cyclical trough in the second quarter of 1980, national product and final sales were again very close.

This is surely a quite atypical pattern: normally, there is substantial inventory accumulation at the cycle peak, and decumulation at the trough, making the decline in production a good deal larger than the decline in final demand. In this respect, the apparent cyclical trough in the first quarter of 1982 was more normal. Indeed, the inventory decumulation in that quarter was undoubtedly partly responsible for the recovery that apparently began in the second quarter. Since final sales had sharply exceeded production, production needed to be expanded in the second quarter, both in order to meet a somewhat higher level of current final demand, and, perhaps as well, to restore at least some elements of the previous quarter's depletion of inventories.

The apparent expansion of production in the second quarter meant at least a slight recovery of real incomes, providing the basis for a further rise in sales, at least to consumers. During this early part of the upswing—now apparently underway—the rise in demand may, as it often does, even exceed the rise in production, causing further inventory depletion, or at least delaying the desired restoration of sellers' inventories. But at some later stage in the current recovery—we hope a much later stage—growth of final sales will doubtless once again fall behind the growth of production, causing net inventory accumulation in excess of that desired. This will eventually lead to a cutting back, first, of the *growth* of production, and, later, of the *level* of production, thus bringing the expansion to an end. This is clearly what happened in the second and third quarters of 1981. In those two quarters production included additions to inventories at annual rates of $10.8 and $14.9 billion, respectively; and there was a small further accumulation in the fourth quarter. This surely led to the scaling back of production.

In the first quarter of 1982, however, final sales in the amount of $17.5 billion (annual rate) were accommodated by *reducing* inventories. This shift from accumulation to decumulation over the two quarters (1981:3 to 1982:1) adds up to $32.0 billion (annual rate)—about 2% of GNP in 1981's third quarter. These sales out of inventories more than offset the effects on total production of those elements of the demand for goods and services (by consumers and government) which were *increasing* in that quarter.

The balance of Chart 1 shows what was happening to the various components of output—the various kinds of goods and services that were being produced. We are interested here not only in the "cyclical wiggles" of these components, but also in their general trends.

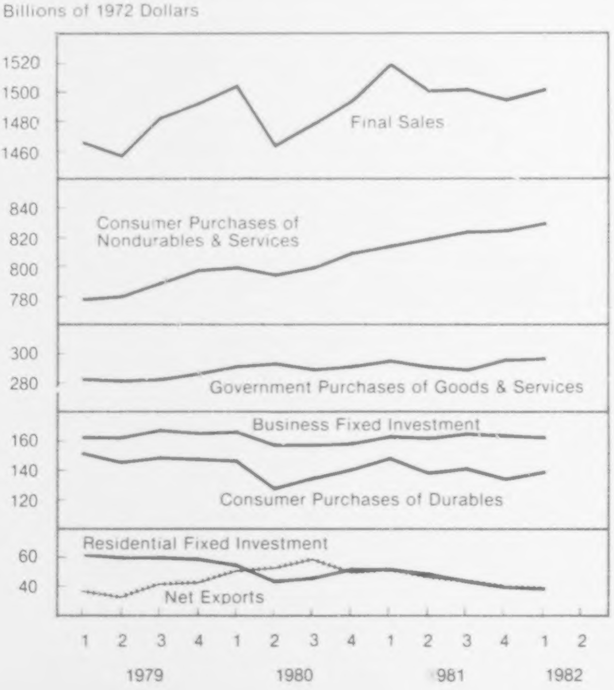
Examination of the several panels of Chart 1 shows that the pattern of movement in the total production of *goods* (third panel down)—excluding services and structures—generally duplicates the pattern of movement of real GNP (shown in the top panel). This is the case even though the output of goods is considerably less than half of GNP. Output of *durable goods* alone (fourth panel)—whether of durable goods intended for producers, consumers, government or export—shows essentially the same pattern of variation as that for all goods; but it has a substantial downtrend over the entire period. The pattern for *structures* (fifth panel) also reflects both recessions; but this, too, is superimposed on (an even sharper) downward trend. The combined output of *nondurable goods* and *services*, on the other hand (in the second panel), shows considerably lesser *fluctuations* than does GNP over the period, as well as reflecting a pronounced *upward trend.*

The two recessions were thus reflected mainly in a leveling off—but not a decline—in the output of nondurables and services. In contrast, production of automobiles (included in durable goods, but also shown separately), of total durables, and of residential and nonresidential structures shows both considerable participation in the cyclical fluctuations and substantial downward trend over the period.

Why this contrast between a growing weakness in demand for structures and durables and relative strength in nondurables and services? The answer clearly reflects the fact that structures and durables—whether intended for consumers or for business—are normally financed by *borrowing* (or by the selling off of accumulated financial assets); the typically high interest rate during this whole period (or the capital losses typically sustained on securities sold) surely contributed to the weakness in the production of durables and structures, whether intended for business or consumers.

Chart 2 breaks down final sales (or purchases) primarily by *class of buyer.* Panel two shows the general uptrend in consumer purchases of nondurables and services, and panel three, a slight up-trend in government purchases; both are in contrast to the essentially trendless pattern of

CHART 2. Final Sales, By Class of Purchaser and Type of Output



business-fixed-investment purchases, and the downtrends in consumer purchases of durables and residential investment. Net exports (sales abroad less purchases abroad) gave strength to total demand in the first half of the period and contributed to weakness in the second half, but as usual had no noticeable cyclical pattern.

High Inflation, Unemployment, and Interest Rates

Thus, while many of the cyclical patterns shown in Charts 1 and 2 are, in a general way, quite familiar to business-cycle watchers, other aspects of recent economic performance are somewhat unusual. One such unusual aspect, not directly reflected in Charts 1 and 2, is the combination of very high rates of inflation with an extended period of extremely high unemployment. Whether compared at cyclical low points, or at cyclical peaks, unemployment in the late 1970s and early 1980s has been at higher levels than at any time since the Great Depression. Yet the inflation rate has been little reduced by this disturbingly high unemployment, nor by the large amount of idle plant and equipment. The explanation of this paradox is a matter that I—and many others—have treated on a number of occasions; and there is neither space nor need to attempt it here.

A not-unrelated peculiarity of the recent cyclical performance is the very high rates of interest that have prevailed during this period and the relative insensitivity of these high interest rates to recession and slack markets. The primary reasons for this lie in the combination of monetary policies pursued by the Federal Reserve System and the fiscal policies of both Carter and Reagan administrations.

Interest rates normally fall in recessions and peak sharply in booms—for two reasons. One reason is that cyclical declines in output and employment automatically reduce the demand for money balances. Unless the rate of increase in the supply of money balances is correspondingly reduced, ideal money balances emerge, which in recessions tend to flow into financial markets, increasing the demand for and bidding up the prices of open-market financial instruments (bonds, stocks, comercial paper, etc.), thus reducing their yields. At the same time, the rate of growth of the *supply* of these financial instruments is normally reduced in recession periods because of the reduced spending for the new capital assets (plant, equipment, inventories, residences, and consumer durables) that are to a considerable extent financed by new issues of such financial instruments. This reduction of supply further tends to bid up the price of financial assets, thus lowering interest yields.

However, during the recent period, the normal decline in the demand for money balances in recessions has in substantial part been matched by a reduction in the growth of the supply of money balances, as a result of the policies of the Federal Reserve. Moreover, the substantial inflation, continuing even during recessions, had tended to maintain a high or even growing demand for money balances. Thus, the combination of a stubborn inflation rate largely insensitive to recessions, and a tight monetary policy aimed at reducing inflation (or, at the very least, intended not to accommodate it), accounts for the stubborn and unprecedentedly high level of interest rates.

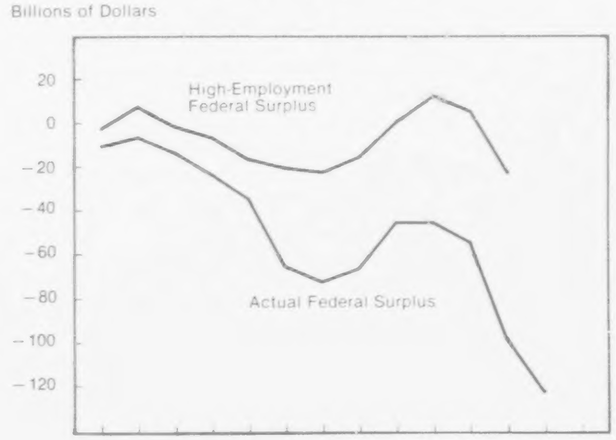
High interest rates are the essential reason for the peculiar cyclical patterns in the composition of output that were noted earlier, and that show up so clearly in Charts 1 and 2: namely, the significant and persistent weakness in the demand for *durable goods* and *structures*. This weakness of private demand for durable goods and structures is the primary reason for the prolonged weakness of total demand for goods and services. It is therefore also a primary reason for the very large budget deficits that worry so many people. For a slack economy both reduces tax revenues and raises public outlays for many kinds of emergency benefits.

The Deficit Problem

Chart 3 shows both the actual surplus or deficit in the Federal Budget (measured on National-Income-and-Product-Account basis) and the so-called "High-Employment-Budget-Surplus-or-Deficit," calculated on the assumption of a "high-employment" unemployment rate of 5.1%.[2]

High-employment deficits were inherent in the programs proposed by the Carter administration, and enacted by Congress, for the fiscal years 1980 and 1981, in an effort to moderate the 1980-81 recession and promote recovery. Because private demand turned out to be even weaker than predicted, the recession was nevertheless unusually severe, and the actual deficits were very much larger than anticipated.

CHART 3. Federal Government Surplus in National Income and Product Account: Actual and at High Employment



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[2] See Frank de Leeuw and Thomas M. Holloway, "The High-Employment Budget: Revised Estimates and 'Automatic Inflation Effects,'" *Survey of Current Business*, 62:4 (April 1982), pp. 21-23.

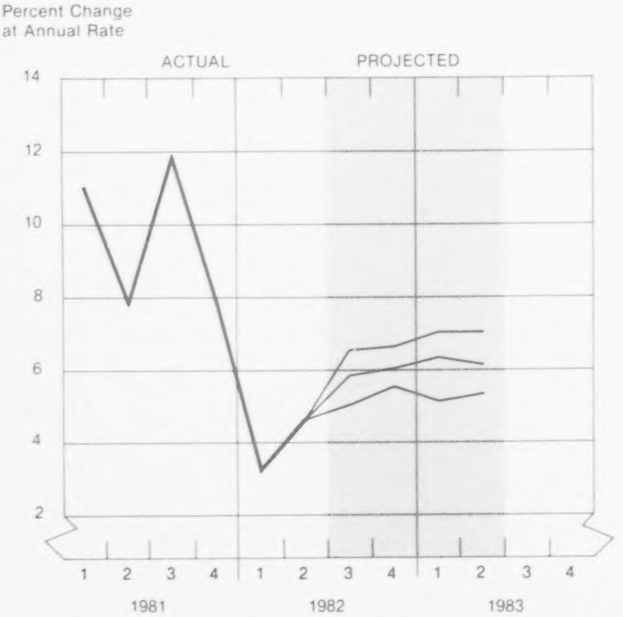
The three-year Reagan tax cuts enacted in early 1981 (for alleged "supply-side" rather than "demand-side" reasons) — along with a vast buildup of defense expenditures — now promise enormous high-employment deficits in fiscal years 1983 and beyond. Although this should stimulate the recovery of private demand for goods and services (assuming a reasonably "accommodating" monetary policy), it could also greatly *over*-stimulate the growth of total demand, once the economy recovers from recession, therby reigniting inflationary pressures that only now are beginning to ease. On the other hand, the anticipation of this result — and of a *non-accommodating* Federal Reserve policy — may so frighten investors that the economic boom that would normally be associated with very large high-employment deficits may never occur.

Indeed, this may be one reason why the apparent recovery in the second quarter of 1982 seems to have been far from vigorous, why the unemployment rate remains stuck well above 9%, why June retail sales (in current prices) fell below those of May, and why business optimism, ordinarily so ebullient in the early stages of recovery, remains severely dampened.

It is truly a difficult time for cycle-watchers.

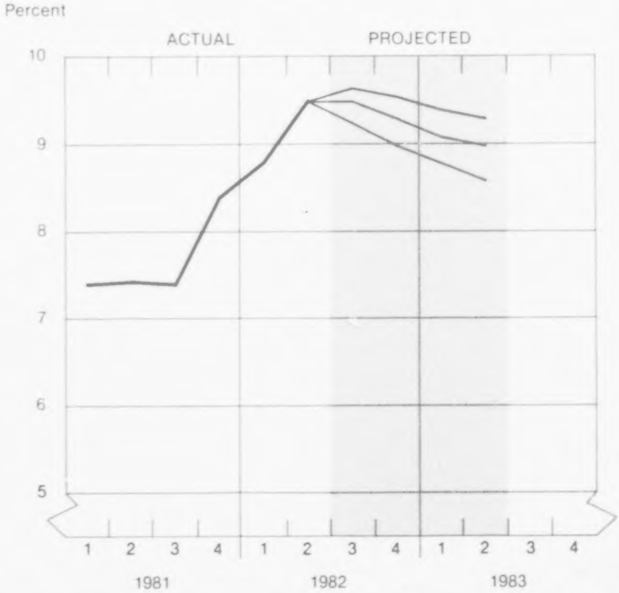
July 1982

CONSUMER PRICE INDEX



Note: Actual data are from U.S. Department of Commerce; projected data are from ASA-NBER Panel of Forecasters, revised when necessary to be consistent with latest actual data. The 3 lines display 3rd, 2nd (median), and 1st quartile values from the array of forecasts.

UNEMPLOYMENT RATE



Note: Actual data are from U.S. Department of Commerce; projected data are from ASA-NBER Panel of Forecasters, revised when necessary to be consistent with latest actual data. The 3 lines display 3rd, 2nd (median), and 1st quartile values from the array of forecasts.

Persistent Unemployment Drains Confidence in Government

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Consumer Sentiment Stalled at Low Levels

In the second quarter 1982 surveys the Index of Consumer Sentiment was 66.2, unchanged from the first quarter 1982 surveys (66.5) and the fourth quarter 1981 surveys (65.7). Compared with the year-earlier reading the Index declined by 7.7 Index-points. In the two years since the all-time record low of 54.4 was recorded in the second quarter 1980 surveys, the Index of Consumer Sentiment has followed a volatile path. In the second half of 1980 the Index rose by nearly 20 points, reaching 72.1 by the fourth quarter. Thereafter improvement in the Index greatly slowed, and it gained less than 3 points by the third quarter of 1981. In the fourth quarter of 1981 the Index fell nearly 10 points to 65.7, and it has remained at that lowered level since then (see the ICS chart, below).

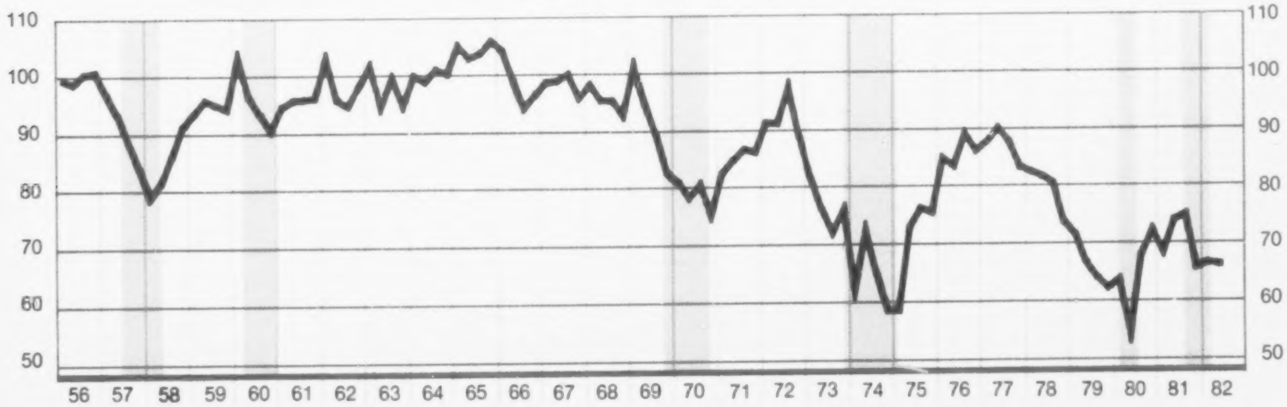
This overall pattern of recovery and subsequent decline was not consistent across the several attitude and expectation measures. Consumers' attitudes and expectations concerning their personal financial situation generally improved throughout the past two years. In contrast, attitudes and expectations about the general economy posted sharp gains as well as subsequent sharp losses. In large part the difference can be traced to inflation and unemployment trends. During the past two years the annual rate of inflation expected by consumers halved, declining from a peak rate of 11.9% in the first quarter of 1980 to 5.4% in the second quarter of 1982. The sharp decline in inflation was the major factor responsible for the overall improvement in personal finances. Concern with spreading unemployment was greatly reduced by late 1980, but by the end of 1981 unemployment again rose to dominate consumer evaluations of business conditions. Throughout 1982 consumers have viewed unemployment rather than inflation as the more serious economic problem facing the nation. Despite the continued low rate of inflation, consumers have lost confidence in overall government economic policies due to increases in unemployment, and they hold less favorable expectations for future improvement in business conditions.

Record Unemployment Expected to Persist

Consumers' evaluations of the current state of the economy remained largely unchanged at very unfavorable levels during the first half of 1982. Eighty percent of all respondents in the first and second quarter 1982 surveys thought that business conditions had worsened during the past year, up from 50 percent at midyear 1981. On only a few occasions have these surveys recorded greater agreement among consumers that the economy was in recession—at the 1974-75 and 1980 recession lowpoints. Consumer awareness of unfavorable changes in business conditions increased sharply during the past year. The proportion that reported hearing news of unfavorable changes rose from 46 to 88 percent, largely due to a single development: spreading unemployment. One year ago 16 percent of all respondents mentioned hearing of increases in unemployment, rising to 40 percent in the first quarter and 43 percent in the second quarter 1982 surveys. Moreover, many consumers expected unemployment to worsen rather than improve in the year ahead. Since late 1981 approximately half of all respondents expected unemployment to continue to increase during the upcoming year, and another third expected the unemployment rate to remain at its same high level. Just 16 percent of all families in the second quarter 1982 surveys expected unemployment to decline in the year ahead.

INDEX OF CONSUMER SENTIMENT

February 1966 = 100



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

Outlook for Economy Dims as Confidence in Government Declines

In the second quarter 1982 surveys consumers expected the economy to improve during the year ahead, but the improvement was not expected to herald the return of good economic times. Consumers expected business conditions to improve rather than worsen by the margin of 36 to 25 percent in the second quarter, unchanged from the first quarter reading but somewhat less favorable than the year-earlier reading. The small decline in favorable business expectations can be traced to less favorable evaluations of government economic policies and to increased concern about the persistence of high levels of unemployment. From the 1981 to the 1982 second quarter surveys, the proportion that mentioned the potential favorable impact of government economic policies fell to 14 from 27 percent, while the proportion that mentioned unemployment rose to 16 from 6 percent.

Overall confidence in government economic policy to combat inflation and unemployment reached its lowest level since President Reagan entered office. The proportion of respondents that rated government economic policy as poor rose to 35 percent in the second quarter 1982 surveys, from 29 percent in the first quarter and just 18 percent in the year-earlier surveys. The proportion that rated government economic policies favorably fell to 19 percent in the second quarter, down from 23 percent in the first quarter and 28 percent in the second quarter of 1981. An unfavorable balance of opinion was also recorded among families with incomes of $20,000 and over for the first time since Reagan entered office. This represented a one-quarter reversal of confidence in government economic policies among high-income families: in the first quarter 1982 surveys favorable policy evaluations outnumbered unfavorable evaluations by the margin of 30 to 24 percent, but in the second quarter unfavorable exceeded favorable evaluations by the margin of 31 to 22 percent.

Although the balance of opinion points toward expected improvement in the economy, few consumers expect the return of good financial times for the economy as a whole. Among all families just 27 percent expected good times financially in the economy during the next twelve months, up somewhat from 23 percent in the first quarter, but well below the 39 percent recorded a year earlier. For the third consecutive quarter, two-thirds of all families expected bad economic times to continue during the upcoming year. Prospects for the economy over the longer term also remained at depressed levels in mid-1982. Among all families 56 percent expected bad times financially during the next five years, more than twice the 25 percent that expected good times in the economy as a whole.

Personal Finances: Lower Prices and Lower Incomes

Consumer evaluations of their financial situation have generally improved during the past two years, although most of the improvement was recorded in early 1981, with financial evaluations remaining largely unchanged during the past three quarters. In the second quarter 1982 surveys consumers more frequently reported that their financial situation had worsened rather than improved during the past year, but the margin of difference (38 versus 30 percent) was much smaller than the low recorded two years earlier (48 versus 25 percent). When asked to explain how their financial situation had changed, many fewer families mentioned the adverse impact of inflation in the second quarter 1982 surveys (28 percent) than one year earlier (35 percent) or two years earlier (42 percent). Income declines due to increases in unemployment, however, were reported more frequently in the first half of 1982 (20 percent) than during the prior five years.

Although the improvement in personal finances has thus far been slow and incomplete, consumer expectations for future gains have been maintained at relatively favorable levels. Among all families, 32 percent expected their financial situation to improve during the year ahead, while 18 percent expected their financial situation to worsen. The improvement consumers expected during the year ahead, as with the improvement in their current financial situation, is due more to lower prices than to higher incomes. Fewer families expected income increases of 10% or more than a year earlier (26 down from 32 percent), while the proportion that expected income declines rose (to 17 from 10 percent). As a result of both lower income and lower price expectations, real income expectations were on balance more favorable in the first half of 1982 than at any time during the past five years.

Unfavorable Buying Conditions

By mid-1982 consumer attitudes toward buying conditions for large household durables fell to the most unfavorable level recorded in two years. An equal number of respondents held favorable as held unfavorable evaluations of buying conditions for durables in the second quarter 1982 surveys, a significant erosion from the favorable balance of opinion recorded one year earlier (49 percent favorable versus 37 percent unfavorable). Unfavorable attitudes toward buying conditions for durables have exceeded favorable attitudes only at the 1980, 1975, and 1970 recession lowpoints. In comparison with mid-1981, many fewer respondents mentioned buy-in-advance rationales in the second quarter 1982 surveys (down to 14 from 28 percent), while they more frequently mentioned the availability of low prices and discounts when asked to explain their views of market conditions for durables (up to 29 from 19 percent). During the same time period, the proportion that mentioned high prices remained unchanged (at 22 percent). References to high interest rates and tight credit conditions rose from 19 to 25 percent during the past year—just below the all-time record of 28 percent recorded in the second quarter of 1980.

Evaluations of buying conditions for automobiles remained unfavorable in the second quarter 1982 surveys, although attitudes continued on a weak upward path from the fourth quarter 1981 low and were above levels recorded in mid-1981. In the second quarter 1982 surveys, 41 percent held favorable views of the auto market, up from 36 percent two quarters ago. Unfavorable attitudes declined from 54 percent in fourth quarter 1981 to 50 percent in second quarter 1982. Contributing to the small improvement in the outlook for autos was the awareness of low prices, mentioned by 35 percent of all families, up from 33 percent in early 1982 and 21 percent one year ago. In addition, mentions of high prices fell from 33 percent in mid-1981 to 29 percent by mid-1982. Mentions of tight credit remained at a record high level of 27 percent, up from 22 percent one year ago.

Buying conditions for housing in second quarter 1982 remain identical to the prior quarter, only slightly above the fourth quarter 1981 lowpoint and lower than levels recorded the prior year. High interest rates continue to dominate the reasons for the unfavorable ratings of the housing market, with 74 percent of all respondents citing high interest rates in the second quarter surveys.

Overall, consumer buying attitudes have remained unfavorable due to high interest rates, despite price declines. By mid-1982 consumers continued to mention the adverse impact of interest rates at near record levels with regard to the housing market (74 percent), vehicles (27 percent), and large household durables (25 percent). At the same time, the proportion of consumers that mentioned low product prices, discounts, or rebates has neared record high levels in the vehicle (35 percent), durable (29 percent), and housing markets (15 pecent).

Widespread Postponement

One-third of all American households reported that they had postponed purchases because of high interest rates in late 1981 and the first half of 1982 (see Table 1). In the second quarter 1982 surveys vehicles were the most frequently postponed purchase (12 percent), followed by housing (11 percent) and household durables (8 percent). Families that postponed purchases were asked what interest rate would have been charged if they had made the purchase. The median overall response was 17.5% in the second quarter 1982 surveys, largely unchanged from prior readings. The highest interest rate that these families would have been willing to pay was 11.9%, on average, in the second quarter 1982 surveys. The gap between the interest rate which would have been charged and the interest rate people were willing to pay was 5.1% in both the first and second quarter 1982 surveys.

The widespread postponement of purchases due to the current high interest rates has been encouraged by the expectation of interest rate declines in the year ahead. Consumers expected interest rates to decline rather than increase during the year ahead by a margin of 41 to 21 percent in the second quarter 1982 surveys. This represents a significant improvement from one year ago, when consumers expected interest rate increases rather than declines by the margin of 37 to 31 percent.

Interest Rate Psychology

Inflation is the yardstick of economic performance that consumers have used to evaluate both their personal financial situation and the prospects for the economy as a whole. During the decades of the 1960s and 1970s, high inflation rates and low real interest rates stimulated a buy-in-advance psychology that had a significant impact on both product and fianancial markets. In the decade ahead interest rates may well replace inflation rates as the "looking glass" through which consumers evaluate their own situation and that of the economy at large.

Consumers have an accurate awareness of the current level of interest rates, and consumer behavior is sensitive to changes in the rates for both loans and assets. In terms of asset accumulation, the growth in the importance of interest rates is indicated by the change in the proportion of total financial assets held by consumers in savings deposits: in 1981, 33 percent of all financial assets were held in saving deposits, more than twice the proportion recorded in 1952 (15 percent). The share of financial assets represented by corporate equities has declined by almost half since the mid-1960s (from 43 percent in 1967 to 23 percent in 1981). Not only have interest rates become more important for investment planning, but they have also become a more important source of personal income. Interest income accounted for 12 percent of total personal income in 1981, up from 8 percent in 1972 and 4 percent in 1952.

The range of new financial instruments and the higher rates of return now available to consumers have been accompanied by a significant restructuring of the financial services industry as well as significant changes in the financial behavior of American households. At the same time, and in part as a consequence of the increased cost of funds, interest rates on consumer debt also increased. More importantly, interest rates on debt are now more responsive to trends in inflation and quickly reflect a built-in premium for expected inflation. These lasting changes in the structure of interest rates will result in raising the appeal of savings and increasing the distaste for debt.

One of the current goals of public policy is to increase consumer saving to provide the necessary capital for business investments (and government deficits). The principal tools of this policy have been a tight monetary policy

TABLE 1. Interest Rate Effect on Consumer Purchases, 1981:4-1982:2

	1981:4	1982:1	1982:2			
	All Items	All Items	All Items	Vehicles	Housing	Household Durables
Proportion Postponing Purchase	34%	33%	32%	12%	11%	8%
Interest Rate that Would Have Been Charged on Postponed Purchase*	17.5%	17.7%	17.5%	17.3%	17.1%	17.9%
Highest Interest Willing to Pay to Make Purchase*	11.9	12.0	11.9	12.1	11.6	11.6
Difference between Interest Rate Charged and that Willing to Pay*	4.7	5.1	5.1	4.9	5.0	5.0

*Median values for families who postponed a purchase.

The questions asked were "Have interest rates caused you to postpone making any purchases during the last six months? What was postponed? What interest rate would have been charged on any money borrowed for (item)? What is the highest interest rate at which you would have purchased (item)?"

coupled with tax and expenditure cuts. This mix of policies has been viewed by some as a paradox; some aspects of the policies act to restrict the economy, while the others stimulate expansion. In terms of consumer savings, however, these policies do not lead to contradictory results. The tight monetary policy aims to achieve the lower rates of inflation needed for long term savings to prosper. The high rates of interest which accompany the federal deficits have also induced consumers to shift from debt acquisition to asset accumulation. The expenditure cuts, in addition to their direct impact on social programs, have sent important signals to consumers. The primary motives for saving, documented in more than thirty years of surveys, have been 1) to provide security and emergency funds in case of economic adversity, 2) to underwrite the education of children, and 3) to provide for retirement. The expenditure cuts may result in consumers becoming more concerned about each of these areas and hence raise the desired level of savings and reserve funds.

In the 1960s and 1970s monetary policy acted to monetize the federal budget deficits—that is, federal deficits were accommodated by introducing more money into circulation, rather than borrowing more money from the private financial markets. This practice resulted in lower interest rates and higher inflation rates. Since the change in monetary policy in late 1979, the federal government has directly competed with the business and consumer sectors for available funds. This new procedure has led to lower inflation rates and higher and more variable interest rates. If during the decade of the 1980s these economic policies remain unchanged—that is, a restrictive monetary policy coupled with personal income tax rates indexed for inflation—the burden of economic adjustments will be enforced, not by inflation, but by interest rates, with consumer savings forced to provide the financial flexibility for the economy to adjust. Consumer investments in financial assets will be favored rather than consumer investments in houses, vehicles, and durables. When federal deficits were surreptitiously financed by an easy monetary policy, inflation was often called the cruelest tax of all. During the 1980s interest rates may well serve to replace inflation as the cruelest tax. Unlike inflation, however, the adverse impact of higher interest rates is concentrated in the house and vehicle markets, and therefore is less likely to arouse unanimous opposition.

Summary Outlook

The outlook for consumer spending remains mixed at midyear 1982. When the several aspects of consumer attitudes and expectations each point in the same direction—whether optimistic or pessimistic—a greater measure of confidence can be taken in the results. Significant divergences, however, exist among the several attitudes and expectations in the first half of 1982. More favorable personal finances point toward increased spending, but the unfavorable expectations about the economy, especially unemployment, have made consumers more cautious in their spending plans. Overall buying attitudes have remained near record low levels due to high interest rates, though price reductions and discounts would otherwise have led consumers to hold favorable buying attitudes.

These data indicate that the recovery in consumer spending will be slow and uneven. Greater sales gains in nondurables and services are likely relative to gains in consumer purchases of vehicles and houses. Insofar as the recent tax cut is financed by government borrowing and results in higher market interest rates, noncredit spending will be favored. The sales pace of large discretionary purchases will continue to be dominated by interest rate trends. The expected moderation in inflation and interest rates has made tomorow's purchase more attractive than today's.

July 1982

The Interest Rate Puzzle: Some Clues

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Introduction

Ever since the new economic policy of the Reagan administration was unveiled, the behavior of interest rates has posed a major analytical and policy problem. The policy problem is simple: long- and short-term interest rates in the middle teens have made it virtually impossible for the administration to achieve its principal economic objective—the reinvigoration of the American economy and, in particular, the achievement of higher investment/GNP ratios with the potential to improve productivity performance.

The simple descriptive facts are that long-term interest rates, after achieving post-war highs in late 1981, have stubbornly refused to decline much. Short-term interest rates also achieved post-war highs in 1981, and while they have declined some, they have not gone down nearly as much as the administration had hoped. The markets for both consumer investment goods (houses, cars, durables) and business capital goods have been negatively affected by the high cost of borrowed funds, leading to a sustained softness in the economy which aborted the recovery from the sharp 1980 recession and produced another recession in 1981. At this writing, it is unclear whether the recession is still in process or about to move into an expansion phase.

The analytical puzzle has to do with the stubbornness of interest rates in resisting decline in the face of both a very soft economy and a marked decline in the inflation rate. Short-term interest rates have always been dramatically affected by an economic environment in which credit demands were weak because goods markets were weak: while short-term rates have declined appreciably from their peaks of 1981, they are still in the low teens and appear strongly resistant to forces which in the past have often tended to cut them in half from levels reached during prior expansions. Long-term rates are a puzzle to some but not to others: they have hardly declined at all from the 1981 peaks, despite the fact that one of their principal driving forces—the inflation rate—has been cut roughly in half over the past 18 months. The usual explanation is the size of present and prospective budget deficits, but for long-term rates that should be linked to fears of future inflation rather than the fact of deficits per se.

Price Expectations

Everyone recognizes that expectations about future inflation rates play a key role in the determination of interest rates, especially long-term rates. The available data on expected inflation rates show much the same trajectory as actual inflation rates—they have been roughly cut in half over the past 18 months (see, for example, the bottom chart on p. 69). Part of the key to the puzzle may lie in the configuration of expectations about price change. That question can be examined with data from a sample of business economists, who are presumably the source of much of the economic advice on which business decisions are based.

The data come from a survey conducted in May by the Survey Research Center for the National Association of Business Economists. It is actually not a sample of NABE members, but much more resembles a universe of NABE members willing to participate in a survey about economic conditions. Some 500 NABE members responded affirmatively to a query about participation in a survey to be conducted quarterly, and most of those who responded were included in the survey.

The data of most interest from the point of view of interpreting interest rate movement during recent months relate to the expectations of NABE members about the long term inflation rate in the U.S. economy. The survey included three such questions: the best estimate of inflation rates during the decade of the 1980s, an estimate corresponding to the "plausible lower limits" of inflation rates during the 1980s, and a counterpart estimate corresponding to the "plausible upper limits" of inflation rates during the 1980s. Thus we have a best guess for the inflation rate over the decade, and upper and lower bounds corresponding to scenarios which would have to be given significant weight in terms of probability of occurrence.

The survey also included a variety of other measures that shed some light on the interest rate puzzle, including estimates of the federal government deficit during fiscal years 1982, 1983 and 1984.

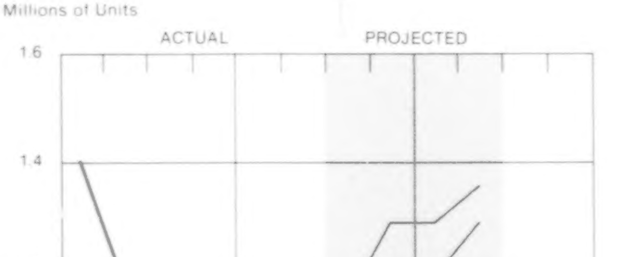
Three points are worth noting about the expectations of the NABE members included in the May survey.

1. First, the inflation rate expectations are asymmetrical: the overall median inflation rate expected for the decade of the 1980s was 6.3 percent—not very different from inflation rate estimates for 1982 and 1983. But the plausible lower limit for the median respondent was just a bit under 4 percent, while the plausible upper limit was over 10 percent.
2. A significant number of NABE respondents regard inflation rates over 12 percent for the decade of the 1980s as an entirely plausible scenario, despite the policy stance of the current administration and the evident dissatisfaction of the American public with double-digit inflation rates. A quarter of NABE members thought that the "highest plausible" decade-long inflation rate was at least 12½ percent.
3. Substantial numbers of NABE respondents gave significant weight to the prospects of rising deficits over the period 1982 through 1984: a quarter of the group thought that the 1982 deficit would be at least 120 billion, rising to at least 140 billion in 1983 and declining to a minimum of 130 billion in 1984. In sharp contrast, what might be thought of as the more optimistic quarter of respondents had deficit estimates of at most 100 billion in 1982, declining slightly in 1983 and declining substantially to at most 80 billion for 1984.

These are fragmentary but suggestive numbers. The upshot is that a substantial number of experienced business economists continue to see a perfectly plausible economic scenario for the 1980s as one consisting of double-digit inflation rates, fueled by deficits that are out of control. In short, a lot of people in the business community think that the administration will not be able to solve its economic policy problems in a way which is consistent with the outcomes of lower inflation rates and higher real growth rates, and they continue to be concerned that current economic policy contains considerable potential for the worst kind of economic performance. Those concerns about the potential path of the system during the 1980s may well underlie the stubbornness of long-term interest rates in holding at near record levels.

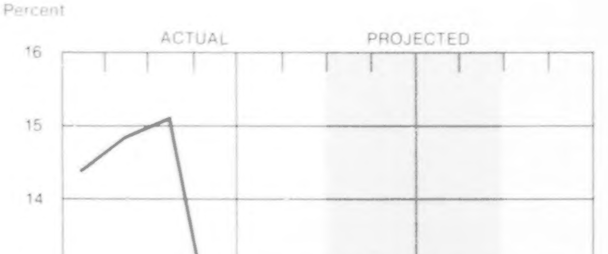
It will be interesting to observe how the expectations of these business economists change over time as new evidence accumulates on the actual behavior of inflation rates, the prospects for deficits, and the political fortunes of those associated with current economic policy. I would not expect long-term interest rates to decline markedly until virtually all knowledgeable forecasters begin to judge the prospects of double-digit inflation rates during the 1980s as implausibly small and thus no longer a factor to be given significant weight in borrowing and lending decisions.

NEW PRIVATE HOUSING UNITS STARTED



Note: Actual data are from U.S. Department of Commerce; projected data are from ASA-NBER Panel of Forecasters, revised when necessary to be consistent with latest actual data. The 3 lines display 3rd, 2nd (median), and 1st quartile values from the array of forecasts.

90-DAY TREASURY BILL RATE



Note: Actual data are from U.S. Department of Commerce; projected data are from ASA-NBER Panel of Forecasters, revised when necessary to be consistent with latest actual data. The 3 lines display 3rd, 2nd (median), and 1st quartile values from the array of forecasts.

Politics from the Pulpit: Religiosity and the 1980 Elections

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The constitutional doctrine of separation between church and state is deeply ingrained in U.S. political culture. Compared to other democratic countries, religion in the U.S. has generally not been a dominant political cleavage. Especially when voting for political candidates, Americans have generally felt that they should rely on their individual judgment rather than on religious group obligation.

Despite the widespread popular acceptance of the separation between religion and politics, the leaders of new evangelical groups have recently begun to appeal to members of all religions to vote for candidates whom they feel stand for a return to traditional moral values in American life and conservative policies. These groups represent the potential development of a new religious cleavage—one that cuts across traditional denominations, dividing the electorate according to individual religiosity, i.e., the extent of fundamentalism in one's religious beliefs. Following the election of Ronald Reagan in 1980, the Republican capture of a majority of Senate seats, and significant gains for the Republicans in the House, new Christian right groups claimed considerable credit for these conservative victories and for subsequently altering the direction of governmental policy.

Such claims did not go unchallenged. Counterarguments were made that the Moral Majority and other conservative Christian groups had little impact on the 1980 election.[1] Furthermore, the continuing controversy regarding both the impact and the size of the Moral Majority has become visible in the popular bumper sticker which reads "The Moral Majority is Neither." The bumper sticker message seems to stereotype the new Christian right as a limited, narrowly based group which has little possibility of expanding either its membership or its political influence. Disputing the implications of the bumper sticker, Richard Viguerie, in his book *The New Right: We're Ready to Lead*, contends that conservative organizations are growing rapidly and will increase their membership by four to five hundred percent before January of 1984.[2]

The Distribution of Religious Beliefs in the Population

The University of Michigan 1980 National Election Study provides empirical evidence which describes the extent of religious identification in the United States.[3] Focusing on the affective component of group identification, we find that in the Fall of 1980 evangelical groups such as the Moral Majority received relatively unfavorable ratings from the American public. Using a "feeling thermometer" ranging from zero degrees as the most unfavorable rating to 100 degrees as the most favorable score, the Moral Majority was rated 45 degrees on the average. By comparison the rating for all 22 categorical groups included in the survey was 67. Even "people on welfare" were rated higher (mean rating of 52) than the Moral Majority. Out of the numerous groups rated by respondents in the election study only "radical students" and "black militants" received lower average ratings than did the Moral Majority.

The limited appeal of conservative religious groups active in politics is also strikingly evident from data on the proportion of respondents who felt close to the Moral Majority. Only *six percent* of the survey respondents said they felt particularly close to the group in terms of *shared ideas and interests*. Evidently very few people in 1980 felt either a positive emotional tie or a cognitive affinity with the Christian right.

Of course, it could be argued that many more people than indicated by the survey share the religious beliefs espoused by the new Christian right, but that their beliefs have not yet been fully politicized. In other words, they express the same belief in the Bible and feel that religion is a very important part of their life, but for one reason or another they do not translate these values into political attitudes or actions. Although no active connection between religious orientation and politics has yet occurred for these respondents, such a translation process is quite possible by virtue of these shared religious values. Clearly, this theoretical possibility holds considerable potential for the religious right. A substantially larger segment of the public currently shares the religious beliefs of the Christian right than shares its *political* commitment. Three out of every four Americans indicated that religion played an important part in their lives and nearly half felt that the Bible is God's word, but only 27 percent felt positively about the Moral Majority (see Table 1). In short, religious beliefs are substantially more pervasive than is current identification with the well-publicized specific conservative Christian groups.

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[1] See, for example, S. M. Lipset and Earl Raab, "The Election and the Evangelicals," *Commentary*, 71 (March 1981), pp. 25-31.

[2] Richard A. Viguerie, *The New Right: We're Ready to Lead* (Falls Church, VA: The Viguerie Company, 1981).

[3] The National Election study of 1980 was made possible by a long-term grant from the National Science Foundation. The data were gathered through pre- and post-election interviews with 1614 individuals selected through a multi-stage probability sampling procedure.

TABLE 1. Percentage Agreeing with Items Used in Construction of the Fundamentalism Scale

Items	Percent
Religion an important part of one's life	75
The Bible is God's word and all it says is true	45
Religion provides a great deal of everyday guidance	35
Positive affect toward evangelical groups such as the Moral Majority	27
Born-Again Christian	26
Feel close to evangelical groups active in politics such as the Moral Majority	6

Broader religious beliefs and feeling close to the Moral Majority are positively intercorrelated, however, again suggesting the possibility for political mobilization on the basis of shared religious values and interests. In order to more effectively determine the extent to which religious beliefs and identifications influence political attitudes and behavior, we constructed a fundamentalism scale by combining the six survey questions included in Table 1. The scale runs from least to most fundamentalist in religious orientation as determined by the number of survey items with which the respondent was in agreement.[4] Those who agreed with all six items were the most politicized fundamentalists while those agreeing with none of the questions were the most secular. Such an index allows us to explore both the general question of what impact religious fundamentalism had on the 1980 election, and at the same time to examine the characteristics and behavior of the most politicized supporters of the Moral Majority. For ease of tabular presentation, respondents falling into the middle three categories of the index have been combined.

Before proceeding, it should be noted that the remainder of the analysis is based upon only white respondents. A somewhat larger percentage of blacks express fundamentalist religious beliefs compared to whites. Yet, we would not expect the religious orientation of blacks to have a conservative political impact because their racial identification is likely to take precedence, thereby moving them in a liberal direction. Given this confounding effect, blacks have been excluded from consideration in the remaining sections.

Religiosity and Politics – Do They Connect?

The major problem which any new interest group on the political scene must face in influencing individual political behavior is simply that they are not working with a clean slate. Therefore, they have to be able to redirect people's attention to the issues with which the group is most concerned and to persuade them that they should vote along these lines rather than along traditional partisan lines and partisan issues.

Himmelstein has written that the leadership of the new Christian right espouses a tripartite combination of social traditionalism, militant anti-communism, and economic libertarianism.[5] This sense of overarching conservatism of the new right's leadership is reflected in the relationship between ideology and religious fundamentalism in the electorate. The higher one is on the religiosity scale, the more likely one is to accept the label of conservative, with eighty percent of those at the most fundamental end of the scale considering themselves as such compared to only thirty-eight percent at the most secular end (see Table 2).

Given that the most militant positions taken by the Moral Majority and other evangelical groups have been on matters of social policy such as school prayer, abortion, the equal rights amendment, and women's place in society, it should not be surprising to find that public attitudes on these issues are strongly related to religiosity. The strong fundamentalists are highly cohesive in their views on these various issues. More than three-quarters of them, for example, are opposed to both abortion and the Equal Rights Amendment, and they overwhelmingly favor prayers in public schools (see Table 2). By comparison, the least fundamentalist respondents are equally as cohesive in support of women's rights, but they are almost evenly divided on the question of school prayer.

New Christian right ministers and leaders have taken strong stands on many of these issues, arguing that they are related to the moral fiber of the American family. Yet, the policy positions on women's issues favored by the most fundamentalist respondents are not simply pro-family but are strongly anti-feminist as well. Interestingly, female fundamentalists were more likely to express anti-feminist sentiments than were their male counterparts. For example, among strong fundamentalists 83 percent of the women as opposed to 75 percent of the men were against the ERA. Similarly, 48 percent of the females but only 32 percent of male fundamentalists thought women should stay at home rather than have an equal role with men in society and the workplace. The degree of anti-feminist sentiment expressed by fundamentalist women is somewhat surprising given that they are relatively young and well educated, two characteristics generally associated with support for feminist views. Apparently the Christian right emphasis on family values has fostered the acceptance of traditional gender roles, especially among female fundamentalists. Of course any male-female differences in attitudes among the Christian right pale by comparison with the immense differences found between the least and most fundamentalist respondents. The cohesiveness evident among fundamentalists on these social issues suggests a high degree of success for the new Christian right leadership in conveying its position on values and life-styles.

However, the extent to which nonreligious-oriented issues are connected with fundamentalism provides the critical test for how effectively the new Christian right philosophy has permeated public opinion. Here we find a much more limited effect than might be expected from the ideological differences across the fundamentalism scale. While the most politicized fundamentalists are distinct

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[4] A Guttman scale program was used to construct this measure of fundamentalism. A maximum of two errors and two pieces of missing data were allowed. The coefficient of reproducibility was more than satisfactory at 0.925.

[5] Jerome L. Himmelstein, "The New Right: An Overview," in Robert Wuthnow and Robert Liebman, eds., *The New Christian Right* (Hawthorne, NY: Aldine, forthcoming).

TABLE 2. Issue Orientation by Fundamentalism (White Respondents Only)

	Least Fundamental			Most Fundamental	
Percent...	**0**	**1**	**2-4**	**5**	**6**
Conservative	38	40	48	62	80
Against Abortion	21	45	66	83	85
Against Equal Role for Women	11	14	25	30	41
Against ERA	25	39	44	63	80
For School Prayers	42	70	84	92	96
For Increased Defense Spending	65	70	77	74	86
Against Detente	35	35	35	41	54
For Reduced Government Services	38	39	35	35	58
For Fighting Inflation Rather than Unemployment	37	33	27	29	28
For 30% Tax Cut	38	33	41	39	52
Against Minority Aid	48	47	57	56	50
Against Government Guaranteed Jobs	52	56	47	60	64
Saying Government Too Powerful	78	82	74	84	86

Note: All percentages are based only on cases with valid data on the issues, that is, "Don't Know" responses have been eliminated.

from the rest of the population on questions of defense spending, detente, and reducing government services, the differences on these issues are not nearly as striking as on social issues. Generally, religious attitudes are only *weakly* related to conservative stands on the economic and foreign policy questions which have dominated the agenda during the first year and a half of the Reagan administration, and they are not at all related to questions of governmental assistance to minorities. Although the leaders of the Christian right strongly endorsed Reagan's proposals for reducing government services, cutting taxes, and increasing the defense budget, these data indicate that support in the 1980 electorate for such policies was not particularly limited to, nor unusually concentrated among, people with fundamentalist religious beliefs.

Religiosity and the Vote

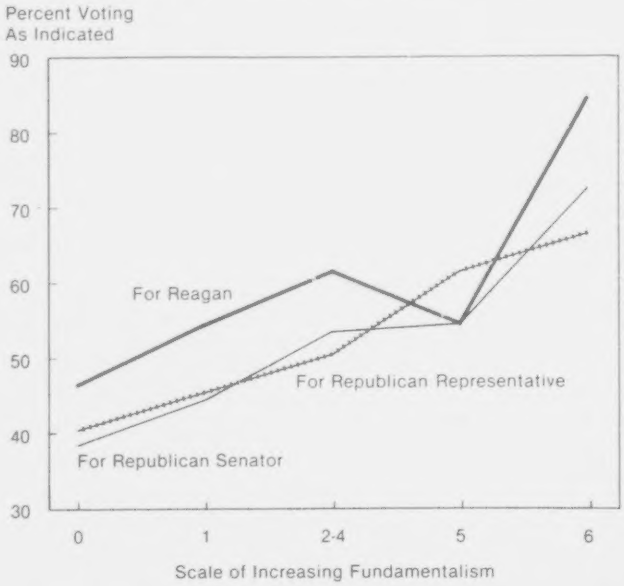
It will be recalled that after the 1980 election the Moral Majority made national headlines by claiming that as a group they had been the decisive factor in Reagan's election and the defeat of several liberal members of Congress. The most obvious question, therefore, is whether there was any direct correlation between religious beliefs and the presidential or congressional vote. Chart 1 demonstrates that respondents who were strongest in their fundamentalist beliefs did indeed vote more heavily for Ronald Reagan. The substantial Reagan vote among the most politicized fundamentalists fits well with the finding that 77 percent of these individuals believed that Reagan would work for the interests of their group. None of the other groups investigated in the survey expressed such a unified belief that one of the candidates would clearly benefit *their* group. Apparently, the supporters of the Moral Majority had no difficulty in linking their group interests with the election of a particular presidential candidate.

Nevertheless, the relationship between religious beliefs and the vote for president is not linear, nor is it particularly strong. The difference in Reagan's support among the most and least fundamentalist categories is quite striking, and it is clearly the staunch fundamentalists who were most distinct from the majority of voters in their unexpectedly high Republican vote. Yet, in spite of the substantial difference in the presidential vote cast by the most and least fundamentalist respondents, religiosity did *not* contribute to the vote decision *independent* of its overlap with party identification and liberal-conservative ideology.

Religiosity did, however, have a *significant and independent* effect on the vote for both Senate and House candidates. For these races, Chart 1 reveals a more linear relationship which remains significant even after controlling for the effects of party identification, ideology, and incumbency. Indeed, religiosity had a significantly greater impact on these races than did liberal-conservative orientation. These data substantiate the claim that the Moral Majority and other conservative religious groups played a noteworthy role in the defeat of at least some liberal congressional candidates in 1980.

Finally, one other possible behavioral effect needs to be explored--that of participation. Any interest group active in politics seeks to maximize political participation among its members as well as to influence the aims of participation. Indeed, it has been argued by some that evangelical groups are more influential than their numbers might imply because of the supposed ability of evangelical leaders to stimulate political action from their followers. Em-

CHART 1. Vote for President and Congress by Fundamentalism (White Respondents Only)



pirical evidence does in fact suggest that religiosity increased the likelihood of both voter turnout and efforts to persuade others how to vote in 1980. Beyond these two activities, however, the data demonstrate that the relationship between religiosity and other forms of participation was virtually nonexistent. Religious fundamentalism does not seem to be at all related to attending political meetings, working for a candidate, wearing campaign buttons or displaying campaign bumper stickers, belonging to a political organization, or contributing money for political purposes. Most notable of the items on which there is no relationship with fundamentalism is contributions to political action committees. Much has been made of the vocal new right PACs, but the 1980 election study data show that liberals were actually more likely to contribute to PACs than conservatives (13.3 compared to 6.6 percent) and that religious fundamentalism was completely unrelated to this form of participation. Of course these data say nothing about the amount of contributions, only the incidence of giving. Strong fundamentalists may have contributed more money although the percentage contributing was no higher than for other groups.

In short, although the new Christian right advocates were not more actively engaged in campaign activities or making contributions than less religious citizens, they did vote at higher rates and were also more involved in persuading others how to vote. This greater electoral involvement is far from insignificant in a period when participation is low, and it may be of even greater importance in the 1982 elections when turnout can be expected to be only about 35 percent.

Conclusion

Contrary to what Andrew Greeley has written, the Moral Majority does exist. It is not simply "a ghost, a spook, a bogey man, ... a fiction of the paranoia of some segments of the liberal media elite...."[6] It is clearly not a majority, but neither is it a narrowly based, sectarian group that can be readily dismissed as a political chimera.

Our research has isolated a subset of the population for whom religious beliefs have become politicized. Along with their common religious orientation, they share similar social policy preferences, believe that conservative candidates will favor their group, and are motivated to act collectively to bring about political changes which they believe are in their collective best interests. While the Moral Majority does not encompass all these individuals, it is representative of new Christian right groups.

The conservative Christians represent an emerging political force in U.S. electoral politics. During a period of generally declining participation the new Christian right appears highly involved in electoral activity. Their religiosity has provided the basis upon which a small but solid voting bloc is being forged. The cohesiveness evident in their political attitudes and voting behavior suggests a unique impact attributable to shared religious interests and the mobilizing influence of the new Christian right leadership. Conservative religious leaders have been very effective in translating questions of morality and social values into political choices among their followers. However, thus far they have been less successful in connecting religion with policy preferences on economics, social welfare, or foreign relations, thereby restricting the scope of their political influence. The Christian right, nonetheless, has reasonable prospects for growth in the future as it is not limited to a narrowly defined social stratum.

Through television and other means of mass communication, the leaders of the new Christian right have been unique in making the connection between religion and politics more explicit and public than in recent memory. However, in many ways they are no different than other special interest groups which have proliferated during the past decade. Direct mail, specialized magazines and newspapers, as well as the use of television have provided these groups with the ability to quickly and effectively mobilize their constituents. Increased capabilities for direct communication with farflung group members have made it more difficult for candidates and political parties to aggregate these diverse groups into broader coalitions and have contributed to an increased degree of volatility in American politics.

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[6] Andrew M. Greeley, "Moral Majority is Liberal's Fiction," *Detroit Free Press* (March 22, 1981), p. 4B.

Housing Deprivation in the United States

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The happy fact that, according to traditional physical measures of housing adequacy, there has been substantial progress in upgrading the housing conditions of American families does not eliminate all worry about the housing situation of the population. It says nothing directly about the distribution of improvements in housing conditions across subgroups in the population nor about the persistence of inadequate housing conditions when they do occur. And, by definition, it does not address the possibly more basic question of whether the meaning of adequacy has changed over time.

Government housing subsidy programs have been cut substantially. President Carter had proposed 240,000 subsidized units for the nation in fiscal 1982. This number has been cut to 153,000 and is projected to be 110,000 units in 1983.[1] Tighter targeting has become a necessity and may require a reexamination of definitions of housing deprivation and need.

The Panel Study of Income Dynamics (PSID) is a unique source of information about changes over time in the housing conditions of individuals and families in the nation as it is based on a national sample and has followed all members of original sample families each year since 1968. In this paper we use PSID data to examine two concepts of housing adequacy: crowding, a traditional physical measure, and affordability, which reflects more recent concerns that inflation has made the main housing problem in the nation one of excessive costs. We focus on overall and differential trends in these indicators over the decade of the 1970s, and on the persistence of these problems for American families.[2]

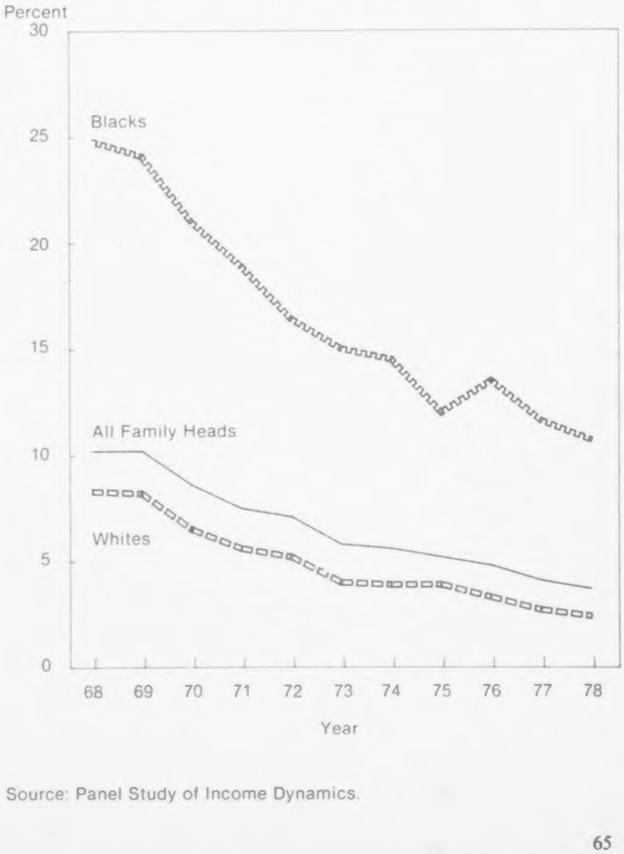
Trends in Housing Deprivation

The fraction of families living in housing units with more than one person per room, the Census Bureau's measure of crowding, has declined over the decade (see Chart 1). By this standard of physical adequacy, the housing conditions of the nation have improved. Over the same period, however, affordability has become a greater problem: between 1968 and 1978, there has been a fairly steady increase in the fraction of families allocating more than 25 percent of their incomes to housing costs. In 1968, less than one-fifth of families exceeded this "rule of thumb" category; by 1978, the fraction was very nearly one-quarter.

A parallel pattern of decline in crowded conditions was detected across families distinguished by race, housing tenure status, poverty status, and sex of head of families with children.[3] Disregarding initial level, each subgroup experienced roughly a two-to-threefold decrease in the incidence of crowding over the decade as measured by the persons per room ratio. Considering family size and composition, the decline was less dramatic but still observable.

Although blacks became less crowded over the decade, they lost ground relative to whites. Blacks began the decade roughly three times as likely as whites to have more family members than rooms in their housing units, but they were five times as likely to be in this status at the end of the decade (Chart 1). Because biack families contain

Chart 1. FAMILIES WITH MORE THAN ONE PERSON PER ROOM, 1968-1978



Source: Panel Study of Income Dynamics.

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[1] HUD and Independent Agencies Appropriations Bills for Fiscal Year 1982 (H.R. 4034), modified by the additional 12 percent cuts announced by President Reagan. The 1983 figure is the projection of the New York City Department of Housing Preservation and Development.

[2] Our analysis actually covers the 11-year period 1968 through 1978. We consider two measures of crowding – persons per room (used by the Census Bureau, among others) and an adjusted measure of persons per room that takes family size and composition into account. The latter measure allows small children to share bedrooms, so its main effect is to reduce the incidence of crowding for families with several small children. Neither measure takes actual room sizes or layouts into account. Affordability is measured by the ratio of housing cost to income; the widely used rule of thumb that a ratio greater than 25 percent indicates excessive burden is adopted here.

[3] The PSID uses the official government definition of poverty. Families who cannot afford basic necessities are considered to be at or below poverty. Adjustments are made for family size and composition.

more young children on average, family composition attenuated this disparity. The gap between other subgroups of families classified as crowded was relatively stable over time.

Similarly, a number of population subgoups had about the same rate of increase in excessive housing cost burdens as the population as a whole. Of all subgroups examined, blacks experienced the least change in affordability over time, beginning and ending the decade among the worst off.[4]

The Frequency and Persistence of Housing Deprivation[5]

Somewhat more than 30 percent of the individuals who were in the panel sample all 11 years lived in housing units with more than one person per room at least once during the period. Once family composition is accounted for, this figure falls to one-fifth, again since this measure takes into account economies in bedroom sharing by young children. (Although average family size decreased over the period, it did not fall below 2.5.) The corresponding fraction for the affordability measure is 54.5 percent. Thus, more than half of all individuals who were members of panel families over the entire period 1968-1978 experienced housing cost burdens that exceeded the 25 percent ratio of costs to income at least once. Stated another way, over this period, an individual was more likely to have experienced heavy burdens at least once than not at all.

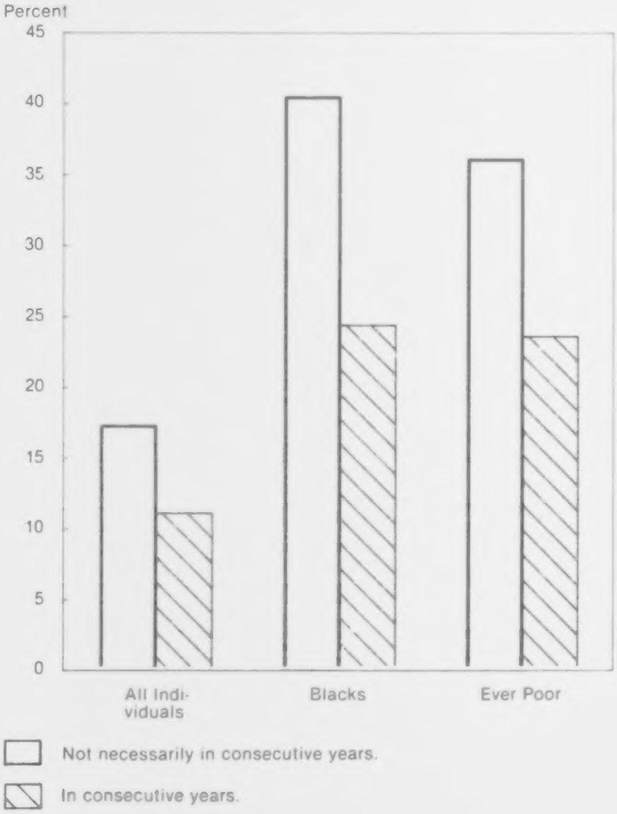
Although different proportions of blacks versus whites, owners versus renters, and other subgroups of families had high housing cost burdens, each of these differences remained remarkably stable. What may be the most dramatic information in these comparisons is the proportion of the poverty population that is classified as excessively burdened by housing costs. Although the pattern is somewhat erratic, this fraction has never fallen below 50 percent over the decade and in a number of years has risen to nearly 60 percent.

From a family welfare standpoint, what may be more important than whether crowding or an excessive cost burden has ever been experienced is how often these problems are experienced and how persistent they are when they do occur. The frequency pattern for all measures of deprivation is generally the same: an individual who experienced crowding or an excessive housing cost burden at any point over the decade was likely to have experienced it more than once. In fact, a fairly sizable fraction of individuals experienced each of these housing problems five or more times.

The persistence of each kind of housing deprivation was also roughly similar. Even though a substantial proportion of panel individuals could be classified by our measures as inadequately housed multiple times during the study period, it was less likely that these multiple occurrences were experienced in successive years—particularly after two occurrences in a row. This general pattern notwithstanding, there were still some individuals who were crowded or burdened by high housing-cost-to-income ratios for more than four or even five consecutive years.

For both crowding measures (unadjusted and adjusted for family composition), whites and never-poor individuals were comparable to the population as a whole in terms of the number of years in crowded housing over the panel period. In contrast, more than half of the blacks and individuals who were ever-poor[6] in the 11 years had lived in housing units with more than one person per room. After family composition is considered, the corresponding fractions for these subgroups were still more than half for blacks and somewhat less than half for the ever-poor. The most pronounced differences among groups were concentrated at the higher frequency ranges. Blacks and the ever-poor had more than twice the probability of being crowded four or more times over the period compared to the population as a whole (see Chart 2). This probability is magnified if whites or the never-poor rather than the total population are used as the basis for comparison. Given their family size and composition, blacks, for example, were about six times as likely to suffer a deficit of adequate space five or more times over the period compared to whites.

Chart 2. FAMILIES WITH MORE THAN ONE PERSON PER ROOM FOR FOUR OR MORE YEARS, 1968-1978



Source: Panel Study of Income Dynamics.

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[4] These subgroups were defined by race, housing tenure, poverty status, and sex of family head with children. We also examined the situation of children who split off from their parental families and married couples who split up.

[5] Findings in this section refer to respondent status at the time of the annual interview.

[6] "Ever-poor" means poor in at least one of the 11 years studied.

These same subgroups were also much more likely to suffer persistent crowding in their housing units than either the total population or their respective counterparts. About one-fourth of blacks and more than one-fifth of those ever in poverty lived for four or more consecutive years in homes that contained more persons than rooms (Chart 2). The corresponding figure for the total population was 11.0 percent; for whites and the never-poor, 8.5 percent and 6.6 percent, respectively. The parallel rates of crowding after family composition is taken into account were much lower, but the pattern was the same.

As for the annual rates of excessive burden, we observed only modest differences between blacks and whites in either the frequency or persistence of housing affordability problems. More than half of the total sample of individuals, of whites, and of blacks experienced high cost burdens at least once over the period, and multiple occurrences of excessive burdens—whether consecutive or not—were also experienced by roughly equal proportions of individuals in each group (see Chart 3).

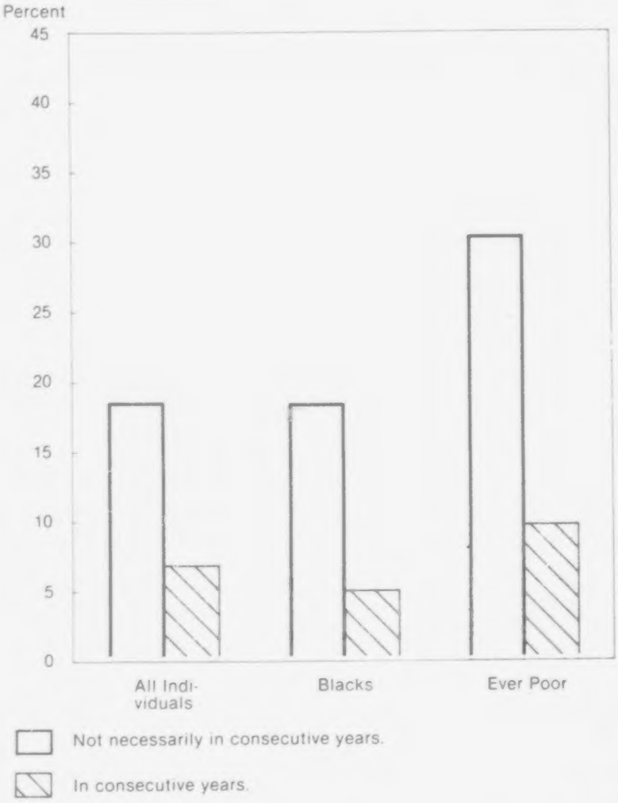
The disparities between the poor and others were much more conspicuous. More than three-fourths of individuals who were poor at least once in the 11 years also experienced excessive housing cost burdens at least once. The fraction for those never-poor was somewhat less than one-half—a proportion lower than that for the population as a whole. Not surprisingly, ever-poor individuals were also more likely to experience high cost burdens four or more times over the period than either those never-poor or than all individuals (Chart 3).

Conclusions

The implications of these data are both positive and negative. American families enjoyed less crowded housing conditions over time, but the benefits of less crowding have come at the cost of increased housing cost burdens. Other data indicate that reductions in crowding have come about primarily for two reasons: larger housing units and smaller household sizes. With fewer household members to share housing costs and the marked inflation in these costs over the decade, the link between improvements in crowding problems but growing affordability problems is drawn. The situation of black families is consistent with this interpretation: blacks had a slower rate of improvement in crowding problems than others but also a slower rate of growth in affordability problems.

Problems of crowding and affordability were also unlikely to be "rare events." For many individuals, each arose several times over the decade; for some individuals, they were chronic problems, arising more than four or five years in a row.

Chart 3. FAMILIES WITH EXCESSIVE HOUSING COST BURDENS FOR FOUR OR MORE YEARS, 1968-1978



Source: Panel Study of Income Dynamics.

Poor families and blacks enjoyed slower rates of progress and larger fractions of them suffered housing cost burdens than others over the decade. Those who have endured crowding problems are very likely to be blacks, but those who are poor suffer both persistent crowding and cost problems. Since persistence of housing problems is probably matched by persistence in economic problems, a better understanding of the relationship between the dynamics of poverty and housing deprivation seems worthy of special attention in new efforts to target assistance.

Actual and Projected Economic Indicators

seasonally adjusted

SERIES FORECAST BY THE ASA-NBER PANEL

ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	Actual							Projected					Act'l	Projected	
	1980:4	1981:1	1981:2	1981:3	1981:4	1982:1	1982:2	1982:2	1982:3	1982:4	1983:1	1983:2	1981	1982	1983
GROSS NATIONAL PRODUCT	2,739	2,865	2,902	2,981	3,003	2,996	3,047	3,031	3,102	3,182	3,252	3,331	2,938	3,077	3,365
GNP IMPLICIT PRICE DEFLATOR (index, 1972 = 100)	185.2	196.0	193.2	197.4	201.6	203.7	206.4	206.2	209.3	212.6	215.9	219.1	195.5	207.9	221.0
CORPORATE PROFITS AFTER TAXES	158.1	161.6	146.2	150.8	144.9	115.9	NA	116.4	126.6	134.9	134.4	139.8	150.9	123.7	142.2
UNEMPLOYMENT RATE (percent)	7.433	7.367	7.400	7.367	8.367	8.767	9.467	9.400	9.400	9.200	9.000	8.900	7.625	9.200	8.800
INDUSTRIAL PRODUCTION (index, 1967 = 100)	148.7	151.8	152.5	153.0	146.3	141.8	139.3	141.0	143.4	146.0	149.0	150.5	150.9	143.0	152.0
NEW PRIVATE HOUSING UNITS STARTED (millions)	1.500	1.399	1.173	0.962	0.865	0.920	0.956	0.965	1.100	1.200	1.200	1.300	1.100	1.045	1.335
CONSUMER PRICE INDEX (% change from prior quarter or year)	12.8	11.0	7.8	11.8	7.8	3.2	4.6	3.4	5.8	6.0	6.3	6.1	10.3	5.7	6.1
90-DAY TREASURY BILL RATE (%)	13.71	14.37	14.83	15.09	12.02	12.90	12.36	12.25	11.80	12.00	12.20	11.50	14.08	12.30	11.78
NEW HIGH-GRADE CORPORATE BOND YIELD (percent)	13.88	14.37	15.22	16.33	16.01	16.14	NA	15.15	14.60	14.45	14.45	14.00	15.48	14.90	13.80
GNP IN 1972 DOLLARS	1,479	1,508	1,502	1,510	1,490	1,471	1,477	1,471	1,484	1,499	1,508	1,521	1,503	1,482	1,526
PERSONAL CONSUMPTION EXPENDITURES (1972 $)	941.0	951.1	944.6	951.4	943.4	949.1	956.3	949.3	957.1	967.9	972.9	980.7	947.6	956.0	985.6
NONRESIDENTIAL FIXED INVESTMENT (1972 $)	166.4	169.7	170.1	173.9	174.2	172.0	168.2	167.8	166.7	166.2	166.2	167.2	172.0	167.8	168.8
RESIDENTIAL FIXED INVESTMENT (1972 $)	49.5	49.6	47.3	42.9	39.9	38.9	39.2	39.6	41.7	44.7	46.7	47.7	44.9	40.6	48.1
CHANGE IN BUSINESS INVENTORIES (1972 $)	-6.2	2.4	12.1	16.5	4.8	-15.4	-6.9	-8.3	-3.1	0.0	0.5	3.2	9.0	-5.6	0.4
NET EXPORTS (1972 $)	45.6	48.2	44.2	39.2	36.5	36.9	35.6	35.8	35.2	35.3	35.4	35.4	42.0	35.9	35.8
FEDERAL GOVERNMENT PURCHASES (1972 $)	104.8	107.9	107.0	110.7	116.0	114.4	109.4	112.9	112.5	112.0	113.4	113.9	110.4	113.4	114.4
STATE & LOCAL GOVERNMENT PURCHASES (1972 $)	178.4	179.0	176.9	175.7	175.3	174.9	175.0	173.9	173.9	172.9	172.9	172.9	176.7	173.9	172.9

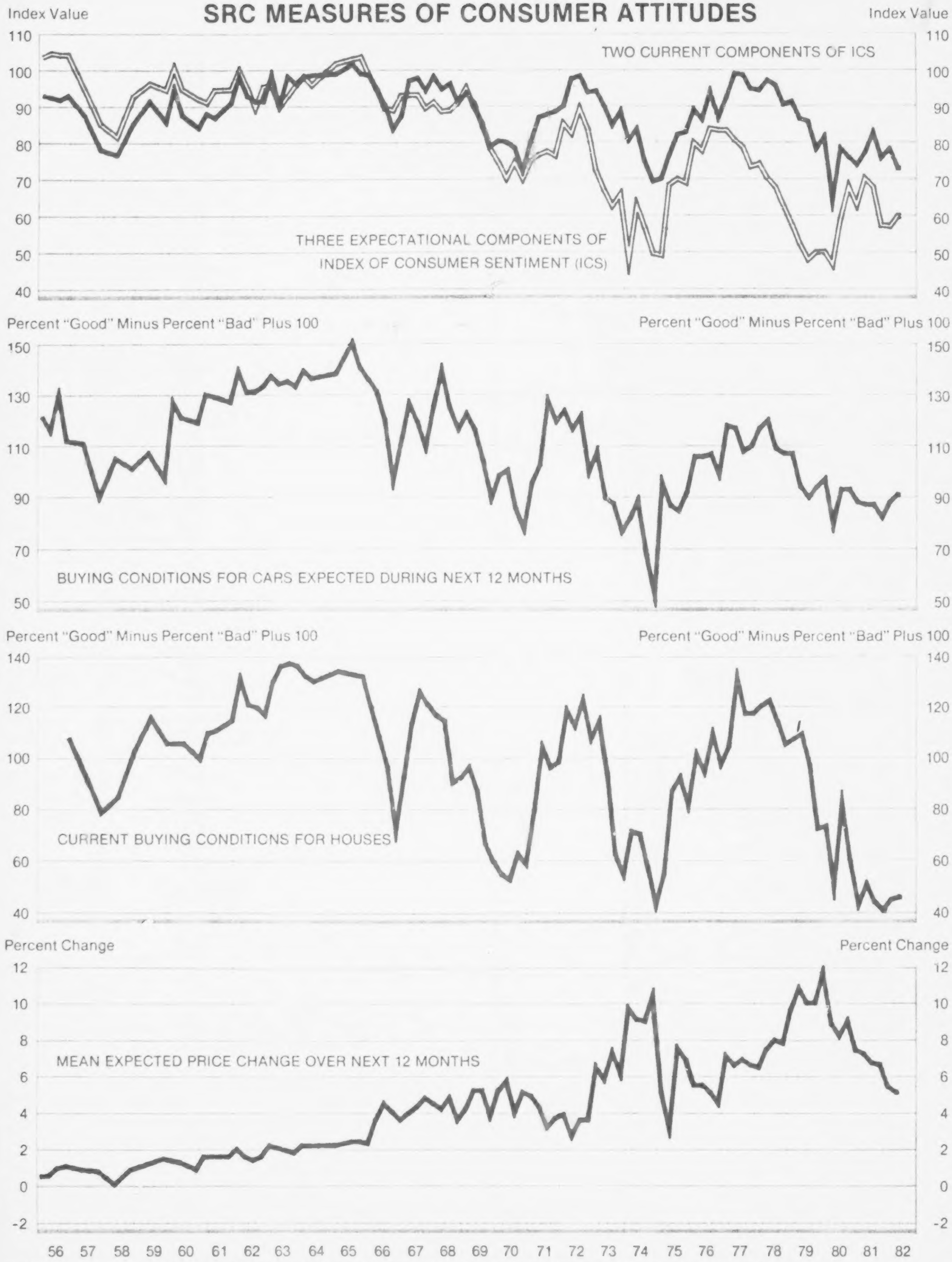
SERIES FROM THE CURRENT-DOLLAR GNP ACCOUNTS

ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	1979:3	1979:4	1980:1	1980:2	1980:3	1980:4	1981:1	1981:2	1981:3	1981:4	1982:1	1982:2	1979	1980	1981
GROSS NATIONAL PRODUCT	2,455	2,503	2,576	2,573	2,644	2,739	2,865	2,902	2,981	3,003	2,996	3,047	2,418	2,633	2,938
PERSONAL CONSUMPTION EXPENDITURES	1,528	1,578	1,619	1,622	1,682	1,746	1,800	1,819	1,869	1,885	1,919	1,951	1,507	1,667	1,843
GROSS PRIVATE DOMESTIC INVESTMENT	431.9	416.8	424.0	391.0	384.1	410.3	455.7	475.5	486.0	468.9	414.8	429.1	423.0	402.3	471.5
NET EXPORTS	16.1	10.5	14.0	24.2	39.0	23.5	31.2	23.7	25.9	23.5	31.3	35.6	13.2	25.2	26.1
GOVERNMENT PURCHASES	478.5	497.6	519.2	536.0	538.5	559.8	578.1	583.2	600.2	626.3	630.1	631.9	474.4	538.4	597.0
DISPOSABLE PERSONAL INCOME	1,674	1,715	1,767	1,781	1,846	1,903	1,959	1,997	2,060	2,101	2,117	2,152	1,650	1,824	2,029
PERSONAL SAVING RATE (% of disposable income)	5.9	5.1	5.5	6.1	6.1	5.5	5.4	6.1	6.5	7.5	6.6	6.6	5.9	5.8	6.4

Note: (1) All data are at annual rates and in billions of current dollars unless otherwise indicated. (2) To facilitate comparison and evaluation of forecasts, both actual data, released in late July, and projected data, released by ASA-NBER in June, are displayed for second quarter 1982.

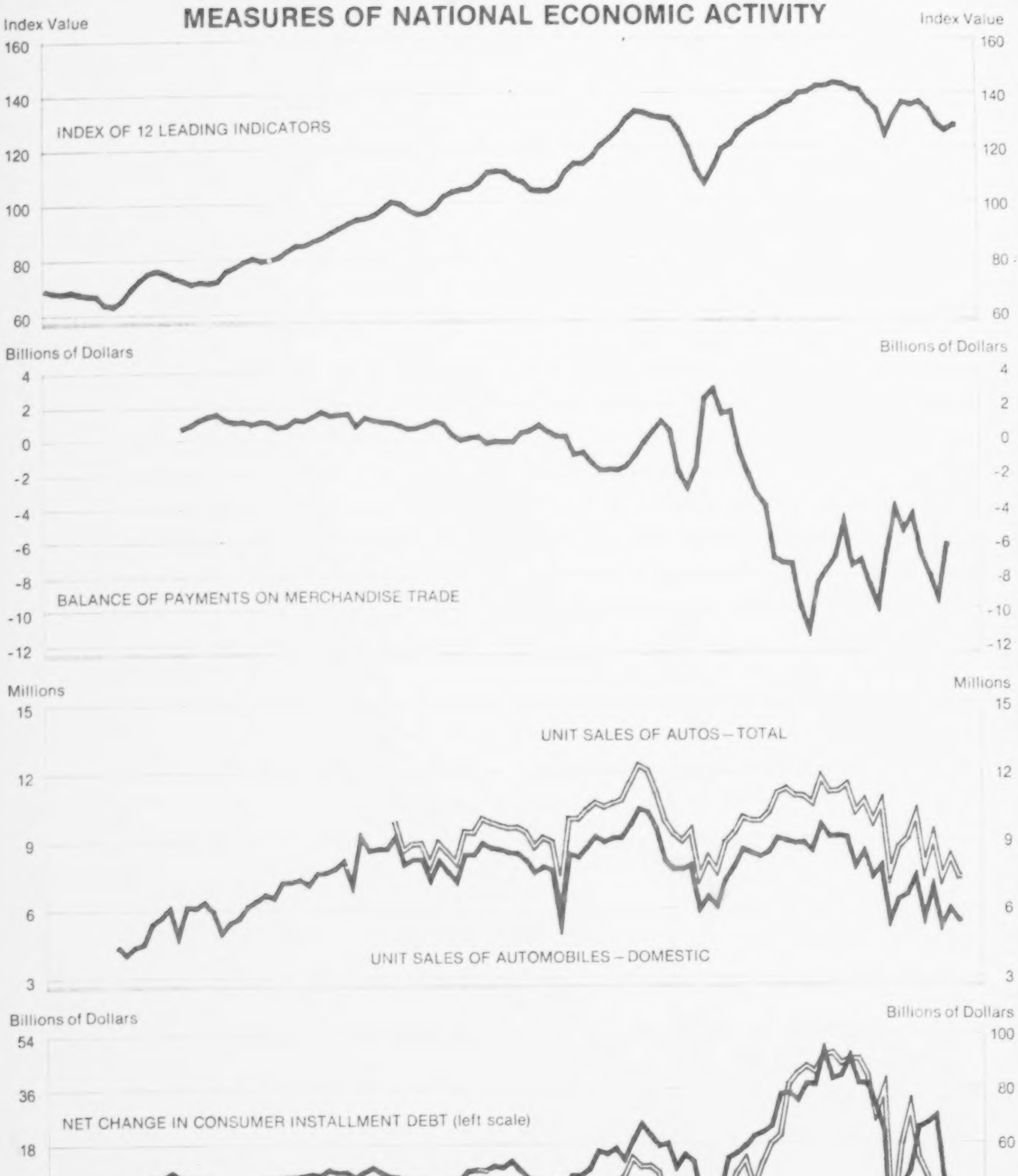
Sources: Projections: American Statistical Association – National Bureau of Economic Research panel of forecasters.
Actual Data: U.S. Departments of Commerce and Labor, Board of Governors of the Federal Reserve System.

SRC MEASURES OF CONSUMER ATTITUDES



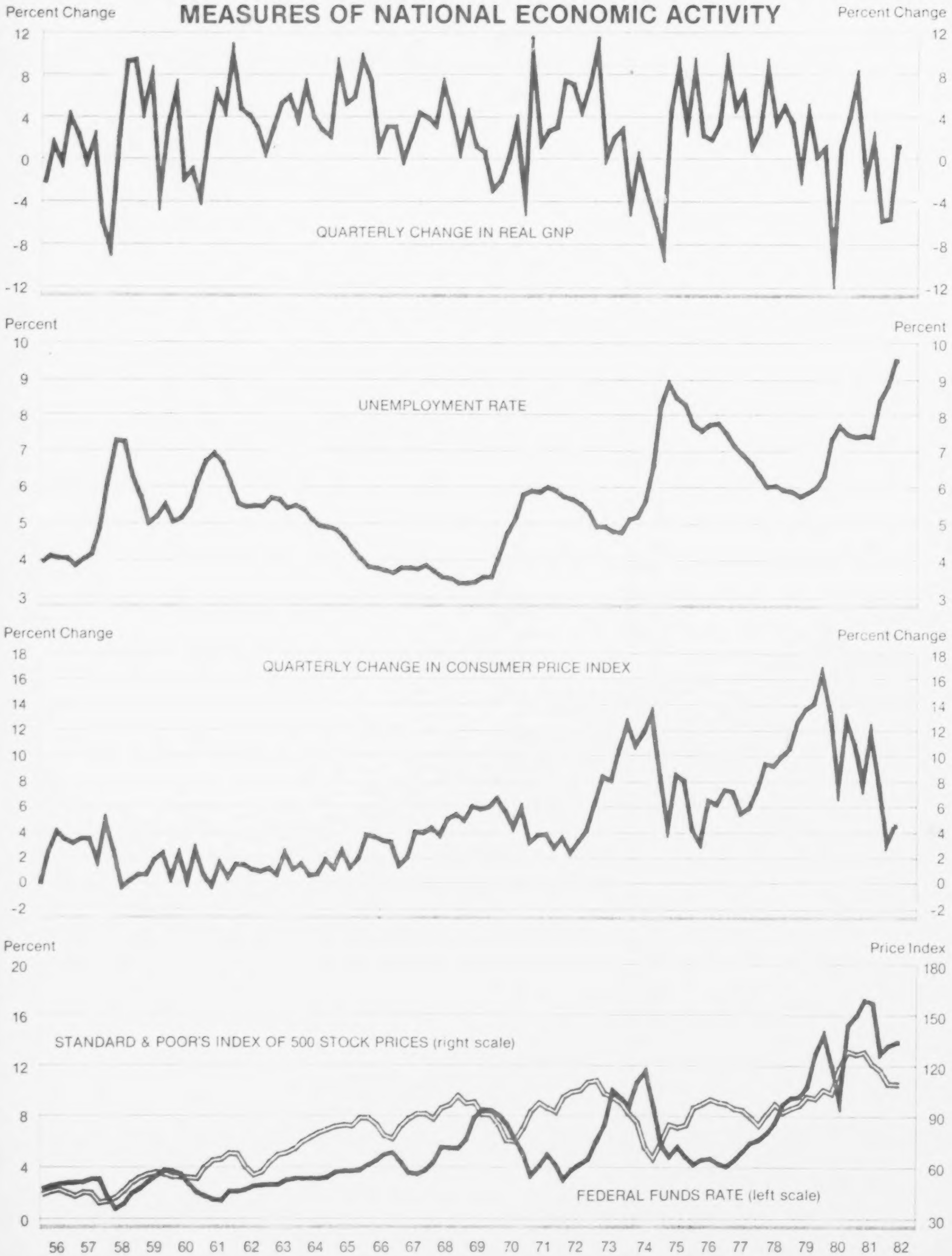
Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

MEASURES OF NATIONAL ECONOMIC ACTIVITY



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

MEASURES OF NATIONAL ECONOMIC ACTIVITY



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Revised and Expanded

A Guide for Selecting Statistical Techniques for Analyzing Social Science Data

Second Edition

by Frank M. Andrews,
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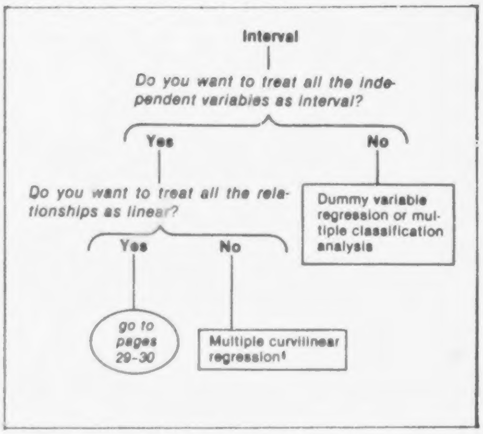
Interval
Do you want to treat all the independent variables as interval?
Yes
No
Do you want to treat all the relationships as linear?
Dummy variable regression or multiple classification analysis
Yes
No
go to pages 29-30
Multiple curvilinear regression¹

In its popular first edition, this handbook became a valuable reference tool for social scientists and data analysts in fields as diverse as psychology, sociology, economics, political science, education, public health, marketing, evaluation research, and statistics.

The substantially enlarged second edition retains most of the original material from the first edition, and adds significant new material that includes greatly expanded coverage of multivariate analysis. It presents a systematic, condensed overview of nearly 150 currently used statistics and statistical techniques and their applications.

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For each statistic presented in the Guide a major reference is cited in Appendix A, including the specific pages on which the statistic is discussed and its means of computation given. Appendix B, which indicates where each statistic can be found in the output from computer software, has been expanded to include detailed information on sources in the OSIRIS, MIDAS, SPSS, SAS, and BMDP software systems.

A third appendix summarizes some additional statistical techniques that were judged too new or too rarely used to merit inclusion in the decision-tree portion of the Guide but that are potentially useful for social science data analysis. A glossary and thorough bibliography are also included.

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